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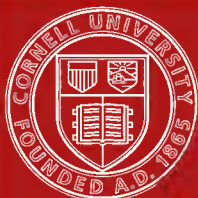
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PRINCIPLES OF
DOUBLE-ENTRY BOOKKEEPING

PRINCIPLES
OF
DOUBLE-ENTRY BOOKKEEPING

BY
CHARLES M. VAN CLEVE

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PREFACE

The purpose of this treatise, as its title implies, is to explain the principles which underlie the art of accounting by the double-entry method. It deals with the interpretation rather than the routine of bookkeeping, and limits the discussion to the three essential forms—the journal entry, the ledger account and the balance sheet. It does not propose any change in the routine, but it does propose a decided change in the interpretation of accounts and in the method of reporting results.

What I claim for the book is that it solves the problem of placing double-entry bookkeeping upon a rational basis; and to the best of my knowledge and belief it presents the first and only solution of that problem.

It is one of the strangest things in the history of the arts and sciences that this great system of accounting, which, by reason of its compactness and convenience, has come into almost universal use, should have attained so high a degree of development on the practical side, while on the theoretical side it is and always has been in a state of utter confusion. As a rule, the study of a useful art has a certain value as mental discipline; the art of accounting is the one exception to the rule. Aside from the so-called occult sciences, there is nothing which so tends to bewilder the mind and to dull the faculty of reason as the study of double-entry bookkeeping in the form in which it is customary to present it.

I have read a number of works on the subject, including some of the most recent, but I have never seen a text-book which gave any indication whatever that its author had even the remotest conception of the principles upon which the art is based; I have never read a text-book in which there was

any logical argument, any consecutive line of reasoning; in short, I have never read a text-book dealing with the theory of double-entry bookkeeping which was not simply a more or less elaborate attempt to beg the question. With reference to that statement one should keep clearly in mind the distinction between describing a process and explaining it. In their description of double-entry bookkeeping many of the text-books are very successful, and most of them are fairly so; but in their attempts to explain it, all of them, that I have ever read, are absolute failures. They answer the question "how," but so far as my observation goes, there is not one of them that answers the question "why."

What makes double-entry bookkeeping incomprehensible to the people in general is the fact that it is the universal custom in this system of accounting to make statements in a form showing assets and liabilities equal, and losses and gains unequal—a form which the common sense of mankind instinctively rejects. In his attempts to justify his practice the accountant long ago devised the theory that double-entry bookkeeping deals with the assets and liabilities, not of the proprietor, but of the business, and that the assets and liabilities of the business are always equal because the proprietor's net capital is a liability of the business to the proprietor.

The most remarkable thing about that theory is that it has been accepted by the great majority of accountants in spite of the fact that it is self-evidently false. If assets and liabilities are always equal, gains and losses are always equal; for every increase of asset, which is gain, there must be a corresponding increase of liability, which is loss, and for every decrease of asset, which is loss, there must be a corresponding decrease of liability, which is gain.

When the bookkeeper professes to justify his practice by saying that his statement shows the assets and liabilities of the "business," he is simply begging the question. What he is called upon to explain is not merely the fact that he shows

assets and liabilities equal, but the fact that he shows assets and liabilities equal and losses and gains unequal; and that he never can explain, because it is in direct violation of the axiomatic proposition that if two variable quantities are always equal, the changes in those quantities must be equal. Among all professedly rational pursuits, the art of accounting, as it is taught and practiced, has the unique distinction of being based upon the denial of a self-evident truth. The doctrine of equal assets and liabilities is an insult to the human intellect; it is a disgrace to the people who teach it and an outrage upon the people who are taught.

But the accountant is not a logician. He has been trained to believe that it is a sufficient excuse for the form of his statement to say that it shows the assets and liabilities of the "business," and he is satisfied with that. The consequence is that while it is not difficult to explain this system of accounting, it is exceedingly difficult to convince bookkeepers that it needs explanation. For that reason, before presenting the true theory, it is necessary to demonstrate the utter absurdity of the current method of teaching double-entry bookkeeping. Some of the remarks which are made on that subject may be displeasing to the reader, if he is himself an accountant; but I assure him that they are not made in any spirit of fault-finding nor with any intent to give offense. Their only object is to arouse accountants to a realization of the fact that public opinion will never accord to their occupation a rank commensurate with its importance, unless double-entry bookkeeping, both in theory and in practice, is brought into harmony with common sense.

CHARLES M. VAN CLEVE.

New York, August, 1912.

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PRINCIPLES OF DOUBLE-ENTRY BOOKKEEPING

CHAPTER I

SINGLE-ENTRY BOOKKEEPING AND DOUBLE-ENTRY BOOKKEEPING
—THE PROBLEM TO BE SOLVED IS NOT A MATHEMATICAL
PROBLEM—THE TWO CLASSES OF TEXT-BOOKS—DOUBLE-
ENTRY BOOKKEEPING DIFFERS FROM THE SINGLE-ENTRY
SYSTEM IN THAT IT USES FIGURATIVE LANGUAGE.

Bookkeeping, in the technical sense of the word, deals only with values as expressed in terms of money. It had its origin in the necessity of recording debts, but has been extended to cover all financial affairs. The purpose of bookkeeping, then, is to keep track of assets and liabilities and losses and gains.

An asset is anything of value which we own or a debt which will be paid to us, and a liability is a debt which we will have to pay; while losses and gains are changes in assets and liabilities, a favorable change being a gain and an unfavorable change being a loss.

In any systematic method of accounting there must be two books, or two types of books, one (Day-Book, or Journal) in which transactions are recorded in the order of their occurrence, and another (Ledger) in which the items pertaining to each heading are tabulated.

There are two recognized systems of accounting: Single-entry bookkeeping and double-entry bookkeeping; but the latter has supplanted the former to such an extent that the term *accounting* is generally used and understood to mean accounting by the double-entry method.

To illustrate the difference between the two systems we

will assume that on October 8th we buy 100 pairs of shoes at \$3.00 per pair from Wm. Jones on account.

By the single-entry method the bookkeeper records the transaction in this way:

DAY-BOOK

Oct. 8. Bought of Wm. Jones on account, 100 pairs of shoes at \$3.00..... \$300

LEDGER

<i>Dr.</i> (Debtor.)	<i>Wm. Jones</i>	<i>Cr.</i> (Creditor.)
	|| Oct. 8.....	\$300

And then, if he keeps a complete record, he will make the following entry in another book, which is not called a ledger, but is of that type:

MERCHANDISE BOUGHT

Oct. 8. 100 Pairs of shoes at \$3.00..... \$300

By the double-entry method the bookkeeper records the transaction in this form:

JOURNAL

	<i>Dr.</i>	<i>Cr.</i>
Oct. 8. Merchandise	\$300	
Wm. Jones		\$300
100 Pairs of shoes at \$3.00.		

LEDGER

<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
Oct. 8.....	\$300	

<i>Dr.</i>	<i>Wm. Jones</i>	<i>Cr.</i>
	|| Oct. 8.....	\$300

In connection with every transaction there are two things to be recorded. In the case given above, the two things are the fact that we have bought \$300 worth of merchandise and the fact that we owe Wm. Jones \$300. The latter fact is recorded in the same way in both systems of accounting; it is recorded by making the entry under the heading "Wm. Jones, Creditor," and the entry means simply that Wm. Jones is owed \$300. But the fact that we have bought \$300 worth of merchandise is recorded in the single-entry system by making the entry under the heading "Merchandise Bought," while in the double-entry system the entry is made under the heading "Merchandise, Debtor." Now, to say that merchandise is debtor to the amount of \$300 means that merchandise owes \$300, and that statement, taken literally, is nonsense. To speak of inanimate things as owing or being owed is an absurdity.

The whole problem of double-entry bookkeeping is involved in the heading "Merchandise, Debtor," that is to say, in the use of the words *debtor* and *creditor* in other than personal accounts. The purpose of this treatise is (1) to prove that bookkeepers have never been able to solve the meaning of such headings, and (2) to explain what the meaning is.

As it is taught and practiced, single-entry bookkeeping is an incomplete method of accounting; but that is not because the system is imperfect, it is simply because it has never been developed. Double-entry bookkeeping was invented when the art of accounting was still in an elementary stage, and as the bookkeeper's work was gradually extended to cover a greater variety of accounts, it was so much easier to keep the books by the double-entry method than by the single-entry method that the latter system was never carried to its full development. But, as a matter of fact, double-entry is the natural method of accounting, no matter whether the books be kept by the so-called single-entry system or by the so-called

double-entry system. In single-entry bookkeeping the accountant does not often have occasion to make both entries in what is technically called the ledger; but if he keeps a complete record, he will carry as many accounts as may be needed, outside of the ledger, under such headings as the following: Contributions, Withdrawals, Cash received, Cash paid out, Merchandise bought, Merchandise sold, Paid out for expenses, etc., etc.

In both systems, then, the same amount is always entered twice. When the owner contributes money, the item is entered under one heading as a contribution and under another as a receipt of cash. When the owner withdraws money, the item is entered under one heading as a withdrawal and under another as a disbursement of cash. When merchandise is sold on account, the item is entered under one heading as a sale of merchandise and under another to record the indebtedness of the person who bought it. When merchandise is sold for cash, the item is entered under one heading as a sale of merchandise and under another as a receipt of cash. When money is paid out for expenses, the item is entered under one heading as a disbursement of cash and under another to show the amounts paid out for expenses.

The so-called single-entry system, therefore, can accomplish everything which can be accomplished by the so-called double-entry system, but it takes more space and more time to do it. The difference between the two systems is not in the number of entries which are made, but in the wording of the headings under which they are made. In single-entry bookkeeping merchandise account, for example, is in this form:

Merchandise on hand at the beginning and merchandise bought.
--

Merchandise sold and merchandise on hand at the close.
--

In double-entry bookkeeping the account is in this form :

<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>

The entries are exactly the same in both cases, and in both cases the difference between the two sides is the loss or gain.

Double-entry bookkeeping has displaced single-entry bookkeeping, not because it is a more complete system of accounting, but because single-entry bookkeeping is ordinary or long-hand writing, while double-entry bookkeeping is one of the most compact systems of short-hand writing that have ever been invented.

In single-entry bookkeeping the meaning of the entries is so plain that any person of ordinary intelligence can understand them without any previous instruction on the subject. It is very evident that the ledger entry,

<i>Dr.</i>	<i>Wm. Jones</i>	<i>Cr.</i>
	||	\$300

means that Jones is owed \$300 ; and entries under such headings as "Cash received," "Cash paid out," "Merchandise bought," "Merchandise sold," etc., are self-explanatory. In single-entry bookkeeping there is absolutely nothing that requires explanation ; the correctness of the process is self-evident. It is merely a record of the proprietor's financial affairs, expressed in plain language and simple arithmetic. But in double-entry bookkeeping the use of the words *debtor* and *creditor* in connection with titles like Cash, Merchandise, Interest and Expense certainly differs from the usage which prevails in ordinary language. Single-entry bookkeeping, then, needs only to be described, but double-entry bookkeeping needs to be explained.

It will be noted, however, that it is not the arithmetic of bookkeeping that needs explanation. That is the same in both systems of accounting, and is so simple that it is not worth mentioning; every school-boy knows enough arithmetic to be a bookkeeper. The problem of double-entry bookkeeping is not a mathematical problem; it is a problem which involves the study of the use of language, and nothing else.

Among the terms which are most frequently used in accounting are the words *debit* and *credit* and the words *asset* and *liability*. These are very simple words and when used in the ordinary way, as in single-entry bookkeeping, their meaning is perfectly clear. A debit entry in a ledger account means that the person owes and a credit entry means that he is owed; and when we speak of assets and liabilities, we mean (unless otherwise specified) the assets and liabilities of the proprietor of the business whose accounts we are keeping, no matter whether the proprietor be an individual, a firm or a corporation. Yet, simple as the words are, I believe it to be a fact beyond dispute that no theory of double-entry bookkeeping has ever been advanced in which both of these sets of words are used in a rational way.

All of the text-books on the subject, that I have ever read, may be divided into two classes. Most of them use the words *debit* and *credit* in their proper sense, which, of course, involves the necessity of personifying the headings of the accounts when they do not represent real persons, since only a person can owe or be owed. But all of these text-books inculcate the doctrine that in double-entry bookkeeping the words *asset* and *liability* are used from the standpoint of an imaginary agent of the proprietor (commonly called the "business") standing between him and the outside world. Whatever is owed to the business by outside parties the business owes to the proprietor, and whatever is owed by the business to outside parties the proprietor owes to the business. In other words, they personify the business, they conceive of

the business as a person capable of owing and of being owed, and they place this imaginary person in such a position that his assets and liabilities are always equal. Their use, then, of the words *debit* and *credit* is rational, but their use of the words *asset* and *liability* is irrational, since it obliterates the distinction between them; every item which is asset or liability at all is both an asset and a liability of the business.

To one who has any regard for mental honesty it is certainly most astonishing that the text-books which argue that it is possible to conceive of a standpoint from which assets and liabilities are always equal, should neglect to add that from the same standpoint losses and gains are also equal. From the standpoint of the "business" all of the fundamental conceptions of accounting cancel each other. The bookkeeper who professes to keep his accounts from such a standpoint is simply reasoning in a circle; his argument begins at zero and ends at zero. The aggregate of the assets and liabilities at the beginning is zero, the aggregate of the assets and liabilities at the end is zero, and therefore the aggregate of the losses and gains is zero. But among the attempted explanations of double-entry bookkeeping, this is the one which has made the deepest impression upon the thoughts, the language and the customs of the bookkeeper, and therefore when I speak of the common or current theory, I mean the theory that double-entry bookkeeping deals with the assets and liabilities, not of the proprietor, but of the "business"—a theory which is so plainly false that it would seem incredible that a rational mind could ever be misled by it.

Other text-books reject the idea of personification altogether, claiming that the explanation of double-entry bookkeeping is found in the equation, Assets — Liabilities = Net Capital, which is true by definition. Their use, then, of the words *asset* and *liability* is rational, since they use them from the natural standpoint, the standpoint of the proprietor; but they can use the words *debit* and *credit* in

their proper sense only in personal accounts. They are forced to take the position that in other accounts these words convey no idea of owing or being owed, that *to debit* means simply to make an entry on the left-hand side and *to credit* means to make an entry on the right-hand side. Text-books of this kind fail to satisfy the intelligent reader, because they do not add anything to what he knew before. The relations between assets, liabilities and net capital are so exceedingly simple that they may be called matters of common knowledge. Every person knows that to determine how much he is worth he must deduct the total of his liabilities from the total of his assets, and he also knows that increase in the amount which he is worth is gain and decrease is loss. If that is all that there is to the problem of double-entry bookkeeping, there is no problem.

The problem of double-entry bookkeeping is not to explain the mathematical basis of accounting—that is so simple that to a person of ordinary intelligence there is nothing to explain—the problem is to explain the use of the words *debtor* and *creditor* in other than personal accounts, without excluding the rational use of the terms *asset* and *liability*. To affirm that in such cases the words *debtor* and *creditor* have no meaning at all is simply to beg the question. If double-entry bookkeeping uses words which mean nothing, single-entry bookkeeping is the only rational system of accounting.

Of the two classes of text-books described above (and, so far as I know, these two classes cover all of the text-books that have ever been written on the subject), both are partly right and partly wrong. Those of the first class are right in personifying the headings of the accounts and wrong in personifying the business, while those of the second class are right in rejecting the personification of the business and wrong in rejecting the personification of the headings of the accounts, since without that idea their language is unintelligible. As long as bookkeepers speak of debiting Cash

and crediting Merchandise to record a sale of merchandise for cash, they must admit that Merchandise is the imaginary person from whom we are supposed to borrow the merchandise which we give to the purchaser, and that Cash is the imaginary person to whom we are supposed to lend the money which we receive from the purchaser; or else they must admit that the language which they use consists of words without sense. If Cash means cash and Merchandise means merchandise, then to speak of debiting and crediting them is the height of absurdity.

When the proprietor of the business whose accounts we are keeping sells merchandise to John Smith on account, there is one way, and only one way, to explain the entries which are made to record the transaction. We must pretend that the proprietor borrows the amount from the person called Merchandise and lends it to the person called Smith, therefore Smith owes the proprietor and the proprietor owes Merchandise; we debit Smith and credit Merchandise. The reader will observe that this explanation does not introduce any intermediate party, that it does not involve any such imaginary person as the "business." The proprietor is the one to whom Smith owes the debt and the proprietor is the one who owes the debt to Merchandise.

In bookkeeping form, if the headings were written in full, the entries to record the transaction would be as follows:

JOURNAL

	<i>Dr.</i>	<i>Cr.</i>
John Smith, to Proprietor	(1) \$100	
Merchandise, to Proprietor	(2)	\$100

LEDGER

<i>Dr.</i>	<i>John Smith</i>	<i>Cr.</i>
	<i>To Proprietor</i>	
<hr/>		
(1)	\$100	

<i>Dr.</i>	<i>Merchandise To Proprietor</i>	<i>Cr.</i>
		(2) \$100

These entries, both those in the journal and those in the ledger, are to be read as if they were written in this form:

John Smith, to proprietor, debtor, \$100,

Merchandise, to proprietor, creditor, \$100,

and they mean that John Smith owes \$100 to the proprietor and that the person called Merchandise is owed \$100 by the proprietor. In bookkeeping, in order to take advantage of a shorter form of expression, we always imagine ourselves in the position of the proprietor, no matter whether the proprietor be an individual, a firm or a corporation. We would say, then, that the above entries mean that John Smith owes us \$100 and that we owe \$100 to the person called Merchandise.

It is very evident that when we debit Smith we are using language in its literal sense; we mean exactly what we say; we mean that Smith owes us \$100. But it is equally evident that when we credit Merchandise we do not mean that we actually owe anything to a person of that name, since in reality there is no such person; we merely pretend that there is a person called Merchandise and that we borrowed \$100 from him. In this case we are using figurative language; but it is language which has a clear and definite meaning, a meaning which it is easy to translate into ordinary language and to express in terms of asset and liability and of loss and gain.

The use of such language is what distinguishes double-entry bookkeeping from single-entry bookkeeping. The whole difference, and the only difference, between the two systems of accounting is in the fact that single-entry bookkeeping always uses literal language, while double-entry bookkeeping always

uses figurative language except when speaking of persons. As soon as one understands the figurative language which it uses, double-entry bookkeeping is just as simple as single-entry bookkeeping—and much more compact.

In single-entry bookkeeping Cash means cash. Merchandise means merchandise. Interest means interest. Expense means expense. But in double-entry bookkeeping Cash does not mean cash; it means the imaginary person who owes the amount of the cash. Merchandise does not mean merchandise; it means the imaginary person who owes the amount of the merchandise. Interest does not mean interest; it means the imaginary person who owes or is owed the amount of the interest. Expense does not mean expense; it means the imaginary person who owes the amount of the expenses. Net Capital does not mean net capital; it means the person (real in the case of an individual owner, imaginary in the case of a firm or a corporation) who is owed or owes the amount of the net capital. Net Capital, then, is the proprietor, while the net capital is the net amount which he is owed or owes. When it is the net amount which he is owed, we say that the net capital is positive; when it is the net amount which he owes, we say that the net capital is negative.

All of the above parties, except the proprietor (Net Capital), are outside parties. There are only the two sides in accounting, there is no intermediate party. In double-entry bookkeeping we have the proprietor on the one side and the outside parties on the other side, and the term "outside party" includes all parties that are not included in the term "proprietor." Any party that owes the proprietor or is owed by the proprietor is an outside party, no matter whether the name of that party be Smith, or Jones, or Robinson, or Cash, or Merchandise, or Interest, or Expense.

In the practice of double-entry bookkeeping we have a very peculiar state of affairs, one which does not exist in any other calling. We have an occupation so commonplace in

its nature that those who engage in it are apt to be the most matter-of-fact and the most literal-minded of men; yet their occupation, prosaic as it is, compels them to use language which is entirely figurative, except as applied to personal accounts—and figurative language is the language of poetry. It is the only case in which the use of poetical language is an essential part of an occupation that pertains strictly to practical affairs. Naturally, the people who are compelled to use this language do not understand it, and the fact that accountants do not understand their own language is the source of all the confusion of thought that exists on the subject of double-entry bookkeeping.

CHAPTER II

THERE ARE TWO PARTIES TO EVERY LEDGER ACCOUNT—THE FIRST AND GREATEST PROBLEM IN DOUBLE-ENTRY BOOKKEEPING—THE COMMON THEORY OF DOUBLE-ENTRY BOOKKEEPING VIOLATES THE LAWS OF RATIONAL SPEECH.

Double-entry bookkeeping keeps all the records in the form of debts, and the very foundation of the whole system, the thing which makes double-entry bookkeeping possible, is the fact that if a person owes anything he must owe it to someone else, that debt is a relation involving two parties.

The bookkeeper knows that a ledger account is a record of debt and that there must be two parties to a debt; he knows that the person, real or imaginary, whose name heads the account is one of the parties, but he has only the vaguest ideas as to the identity of the other party. His confusion of thought on this point is shown by the form in which he makes his entries. In recording a transaction—a sale of merchandise to Thos. Brown on account, for example—he always makes the journal entries in this way:

	<i>Dr.</i>	<i>Cr.</i>
Thos. Brown	\$50	
To Merchandise		\$50

And he often makes the ledger entries in this form:

<i>Dr.</i>	<i>Thos. Brown</i>	<i>Cr.</i>
To Merchandise.....	\$50	
<hr/>		
<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
		By Thos. Brown.....
		\$50

If those entries mean what they say, they mean that Brown is debtor to Merchandise and Merchandise is creditor

to Brown. Both entries mean exactly the same thing. The one puts the statement in the active voice and says that Brown owes \$50 to Merchandise; the other puts the same statement in the passive voice and says that Merchandise is owed \$50 by Brown. In that case the transaction can be explained only in this way: Brown borrows from Merchandise, therefore Brown owes Merchandise; Merchandise lends to Brown, therefore Merchandise is owed by Brown.

It is not difficult to locate the fallacy in that view of the matter. The bookkeeper professes to be keeping track of the business of the proprietor, but he records transactions as if the proprietor had nothing to do with them; he presents the play of "Hamlet" with Hamlet left out. Naturally, the result of his efforts is not very intelligible.

The absurdity of the above form becomes more evident when we take a ledger account in which a number of entries are shown. Cash account, for example, often appears like this:

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>	
To Merchandise.....	\$800	By Bills Payable.....	\$400
To Interest.....	200	By Expense.....	100
To John Smith.....	500		

Reading those entries exactly as they are written, they say that Cash owes \$800 to Merchandise, \$200 to Interest and \$500 to John Smith, and that Cash is owed \$400 by Bills Payable and \$100 by Expense. The result is that the bookkeeper cannot make an intelligent reply to the first question that naturally suggests itself. To whom does Cash owe the balance of the account?

As soon as one recognizes the fact that the proprietor takes part in every transaction and that the proprietor is the second party in every entry which is made to record a transaction,

the whole subject becomes perfectly clear. The transactions which enter into the account given above are as follows:

The proprietor borrows \$800 from Merchandise and lends it to Cash, therefore Cash owes the proprietor and the proprietor owes Merchandise.

The proprietor borrows \$200 from Interest and lends it to Cash, therefore Cash owes the proprietor and the proprietor owes Interest.

The proprietor borrows \$500 from John Smith and lends it to Cash, therefore Cash owes the proprietor and the proprietor owes Smith.

The proprietor borrows \$400 from Cash and lends it to Bills Payable, therefore Bills Payable owes the proprietor and the proprietor owes Cash.

The proprietor borrows \$100 from Cash and lends it to Expense, therefore Expense owes the proprietor and the proprietor owes Cash.

These transactions would be recorded in the journal as follows:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor.....(1)	\$800	
Merchandise, to Proprietor.....(2)		\$800
Cash, to Proprietor.....(3)	200	
Interest, to Proprietor.....(4)		200
Cash, to Proprietor.....(5)	500	
John Smith, to Proprietor.....(6)		500
Bills Payable, to Proprietor.....(7)	400	
Cash, to Proprietor.....(8)		400
Expense, to Proprietor.....(9)	100	
Cash, to Proprietor.....(10)		100

And in the ledger cash account would appear in this form:

<i>Dr.</i>	<i>Cash</i>		<i>Cr.</i>
		<i>To Proprietor</i>	
(1)	\$800		(8) \$400
(3)	200		(10) 100
(5)	500		

In that form the account is complete and its meaning is clear; it means that Cash owes \$1,500 to the proprietor and is owed \$500 by the proprietor, therefore the net result is that Cash owes \$1,000 to the proprietor. The debit entries show the amounts which the person called Cash has received from the proprietor and the credit entries show the amounts which he has given to the proprietor, therefore he should have the balance on hand. The person called Cash is imaginary, but the safe in which he keeps the money and the money which he keeps in it are real; therefore the amount which he has on hand at any given time can be determined by counting the cash. If the amount which the person called Cash has on hand agrees with the amount which he owes to the proprietor the debt is good and therefore from the standpoint of the proprietor it represents an asset.

Many of the modern text-books object to the use of the words "To" and "By" in ledger entries, but they do it simply on the ground that the words are unnecessary; and, so far as I know, none of them object to the use of the word "To" in journal entries. The above discussion brings out the fact that the use which the bookkeeper makes of the word "To" in journal entries, and of the words "To" and "By" in ledger entries, is not merely unnecessary; it is positive proof that he does not know what his entries mean.

In practice the bookkeeper never writes the names of both parties to an account; he heads each of his accounts with the name of the first party only. Now, so far as the actual work of keeping books is concerned, I do not advocate any change in that respect. The number of first parties is unlimited, but there are only two second parties in the whole ledger—the proprietor and one other—and therefore it would be a useless repetition to write the name of the second party; it is easy to distinguish the two classes of accounts without it. But in teaching double-entry bookkeeping, at all events

in the beginning, the name of the second party should be written in every case.

In order to understand the meaning of his entries, the very first thing that the bookkeeper needs is to know who the second party is in each account; yet I have never seen a text-book that even mentions the fact that there must be two parties to a ledger account. The ignoring of the second party makes the teaching of the text-books utterly incoherent; they fail to establish any relation between the various accounts, since it is only through the second party that the accounts are connected. Why should we record the fact that Jones owes \$400, or that Brown is owed \$300, or that Cash owes \$500, or that Interest is owed \$200? What difference does it make to us what these parties owe or are owed—unless they owe us or are owed by us, unless we are the second party in each of these accounts? The entries have no meaning unless the bookkeeper knows who the second party is in each case, and he cannot know that unless he realizes the fact that in the figurative language of double-entry bookkeeping we are always borrowing and lending. We borrow from Merchandise and lend to Jones, therefore Jones owes us and we owe Merchandise; we debit Jones and credit Merchandise. We borrow from Brown and lend to Merchandise, therefore Merchandise owes us and we owe Brown; we debit Merchandise and credit Brown. We borrow from Merchandise and lend to Cash, therefore Cash owes us and we owe Merchandise; we debit Cash and credit Merchandise. We borrow from Cash and lend to Expense, therefore Expense owes us and we owe Cash; we debit Expense and credit Cash. We borrow from Interest and lend to Cash, therefore Cash owes us and we owe Interest; we debit Cash and credit Interest.

It is very evident that the proprietor is the second party in every one of the accounts in which these transactions are recorded; every entry records a debt owed either to the

proprietor or by the proprietor. But it is equally evident that the proprietor cannot be the second party in all accounts. When the owner is an individual the bookkeeper always carries what is called the proprietor's account, net capital account, and in that account the proprietor is the first party. The question therefore arises, Who is the second party in the proprietor's account?

That seems to be a very simple question—and it is a simple question, as the reader will find when he comes to Chapter VIII—but nevertheless it is the first and greatest problem in double-entry bookkeeping. In fact, it would hardly be going too far to say that it is the only problem in double-entry bookkeeping, because, when that has once been solved, the rest of it follows almost as a matter of course.

The accountant has never been able to solve that problem. The only answer to the question that he has ever been able to devise is to the effect that the proprietor is not the second party in any of the accounts, that the "business" is the second party in the proprietor's account and in all the other accounts as well. To be sure, he does not make that statement in so many words, he never mentions the fact that there are two parties to a ledger account; but nevertheless that is the position which he takes.

When the accounts are closed and the balances are brought down to new account, the total of the balances brought down as debits always equals the total of the balances brought down as credits, and the bookkeeper says that these balances represent the assets and liabilities of the "business." Now, if that is the case, the balances which are brought down as debits must represent debts owed to the business, and the balances which are brought down as credits must represent debts owed by the business, and therefore the business must be the second party in every account. According to that view of the matter, the books are kept, not from the standpoint of the proprietor,

but from the standpoint of the business, and assets and liabilities are always equal.

There are two incontestable objections to that theory. One is based upon the mathematical axiom that if two variable quantities are always equal the changes in those quantities must be equal; therefore, if assets and liabilities are always equal, losses and gains are always equal. The other objection is based upon the principles which govern the construction of language. The doctrine of equal assets and liabilities makes the business an intermediate party standing between the proprietor and the outside world, a party that faces both ways; therefore the standpoint of the business is a double standpoint—in harmony with that of the proprietor, looking one way, and in opposition to it looking the other way. Now the words *asset* and *liability* are relative terms, and when the bookkeeper speaks of the assets and liabilities of the business he is using relative terms from a double standpoint—a practice which is absolutely prohibited by one of the fundamental laws of rational speech.

That law is not a rule of grammar; it is a self-evident truth. It applies, not to one language, but to all languages. It is as fixed and unchangeable as the law of gravity, and to the extent to which it is violated, rational speech is an impossibility. Among intelligent men the accountant is the only one who habitually violates that law, and in consequence of his indiscriminate use of relative terms he has evolved a language that neither himself nor anyone else can understand, a jargon in which it is practically impossible to express a clear idea.

For illustration we may take the item which often appears among his liabilities under the heading "Reserved for Taxes." To designate an item as reserved for taxes and to classify that item as a liability is arrant nonsense. The taxes are a liability, but the amount which is reserved for taxes (if there is anything reserved) is an asset. We may reserve

an asset, and we may conceive of reserving net asset; but to speak of a reserve as a liability, or of a liability as a reserve, is one of the characteristic incongruities of book-keeping.

If the taxes have accrued (no matter whether due or not), the item represents a liability, the same as any other; but in that case it does not represent a reserve. If, however, the basis on which the taxes are to be computed cannot be determined until later, then it is proper to take the view that as yet no taxes have accrued, and to indicate an estimated amount of the net capital as reserved for the purpose of paying the taxes when they accrue or if they accrue; but in that case the item does not represent a liability, since as yet no liability has accrued.

Accountants frequently deplore their lack of an accurate nomenclature, but they seem to be unable to locate the source of the difficulty; they seem to be totally oblivious of the fact that their whole technical language, as they have developed it, is founded upon a violation of the laws of rational speech. What can be expected in the way of accuracy in the use of words from men who reverse the standpoint from which they use relative terms; who say that the proprietor's assets are to be called assets, that his liabilities are to be called liabilities, and that the excess of his assets over his liabilities is also to be called a liability, because, although it is net asset from the standpoint of the proprietor, it is liability from the standpoint of the "business"? Following that line of argument, one might say that what Smith owes to the proprietor is to be counted as an asset, that what the proprietor owes to Jones is to be counted as a liability, and that what Brown owes to the proprietor is also to be counted as a liability, because, although it is asset from the standpoint of the proprietor, it is liability from the standpoint of Brown.

If accountants really want to know why they are not recognized as practicing a profession, the reason is not far

to seek. It is because they base their language upon a reversal in the use of words, and their logic upon a contradiction in terms. It is because the only theory which they have ever been able to devise in explanation of their operations is one that calls net asset a liability and net liability an asset. It is because the technical language of accounting, instead of being the embodiment of clearness of thought and accuracy of expression, is an unintelligible jargon of self-contradictions.

✓ A technical language that calls a reserve a liability or a liability a reserve is a disgrace to the people who use it. A technical language in which one says that surplus is a liability and then says that the net gain is to be added to the surplus, is an outrage upon common sense. One would suppose that any bookkeeper would have intelligence enough to know that if the item under the head of "Surplus" is a liability, increase in the amount of that item is loss; and conversely, if gain increases the surplus, surplus is not a liability. One would suppose that any bookkeeper who says that an account payable is a liability and that capital stock is also a liability, would have intelligence enough to know that he is simply reversing the use of words, that the one represents a liability *of* the stockholders and the other represents all or part of the net liability *to* the stockholders—and the net liability to the stockholders is their net asset. One would suppose that any bookkeeper—or for that matter, any man who has intelligence enough to tell his right hand from his left—would have intelligence enough to recognize the utter absurdity of using the words *asset* and *liability* from the standpoint of a party that faces both ways. From such a standpoint there is no such thing as right or left, nor is there any such thing as asset or liability. Relative terms have no meaning at all unless they are used from a single fixed standpoint, and the only fixed standpoint in

accounting is that of the proprietor or the proprietors collectively.

A building is a building, no matter from what standpoint one looks at it; but the building is an asset only from the standpoint of the person who owns it. The word *building* is an absolute term, but the words *asset* and *liability* are relative terms, and relative terms are not to be used from a double standpoint.

CHAPTER III

EXAMPLES ILLUSTRATING THE ABSURDITY OF USING RELATIVE TERMS FROM A DOUBLE STANDPOINT—THE DEFECT IN THE COMMON FORM OF STATEMENT CAN NOT BE REMEDIED BY AMENDING THE HEADINGS.

To illustrate the absurdity of the bookkeeper's use of relative terms, we will assume that four men, A, B, C, D, are standing in the order indicated by the letters, all of them facing the north. B says to the others that he can count as many of them on his left side as on his right, and the others dispute the statement. Still facing the north B counts one on the left and two on the right; then he turns around and facing the south counts two on the left and one on the right, and claims that he has proved his statement because he has counted three on each side.

That is about as stupid a trick as could well be imagined; in the vernacular of the street it would be called "horse-play"; yet it illustrates exactly what the bookkeeper does when he makes a statement like the following:

<i>Assets</i>		<i>Liabilities</i>	
Cash	\$15,000	Capital Stock	\$100,000
Merchandise	95,000	Surplus	20,000
Accounts Receivable ..	14,000	Accounts Payable	8,000
Bills Receivable	16,000	Bills Payable	12,000
	<hr/>		<hr/>
	\$140,000		\$140,000

The only possible excuse that anyone can offer for such a form of statement is to say that it shows the assets and liabilities of an intermediate party, a party that faces both ways. In the case of an individual proprietor the bookkeeper thinks that this party is the business, in partnership accounting he thinks that it is the firm, and in corporation account-

ing he thinks that it is the company. Therefore, to explain the above statement the bookkeeper takes a position looking away from the stockholders, and says that the amounts under the headings Cash, Merchandise, Accounts Receivable and Bills Receivable are assets, because outside parties owe them to the company, and that the amounts under the headings Accounts Payable and Bills Payable are liabilities, because the company owes them to outside parties. Then he turns around and looking toward the stockholders says that the amounts under the headings Cash, Merchandise, Accounts Receivable and Bills Receivable are liabilities, because the company owes them to the stockholders, and that the amounts under the headings Accounts Payable and Bills Payable are assets, because the stockholders owe them to the company. The total liability of the company to the stockholders is \$140,000 and the total liability of the stockholders to the company is \$20,000, therefore the net liability of the company to the stockholders is \$120,000, which is composed of the two items, Capital Stock, \$100,000; Surplus, \$20,000. The bookkeeper now enters the assets and liabilities which he counted from the first position and the net liability which he counted from the second position, and of course his statement balances.

The accountant claims that he has demonstrated the proposition that assets and liabilities are always equal; but, as a matter of fact, he has demonstrated nothing, except a grotesquely absurd trick in the use of words. He can count assets and liabilities equal, but in order to do it he must count each item twice, once as an asset and once as a liability, in exactly the same manner as in our illustration B counts three men on each side by counting each man twice, once on the right and once on the left.

In doing his work the bookkeeper follows a certain routine and does not consciously go through the performance described above; but the following forms will show that if

he is not conscious of reversing his position it is simply because he is mentally cross-eyed.

I. ORDINARY FORM, CROSS-EYED BOOKKEEPING

<i>Assets</i>		<i>Liabilities</i>	
Accounts Receivable .	\$14,000	Capital Stock	\$100,000
Bills Receivable	6,000	Surplus	35,000
Real Estate	40,000	Accounts Payable	30,000
Merchandise	120,000	Bills Payable	20,000
Cash	5,000		
Total	\$185,000	Total	\$185,000

II. CORRECT FORM, STRAIGHT-EYED BOOKKEEPING

<i>Assets</i>		<i>Liabilities</i>	
Accounts Receivable ..	\$14,000	Accounts Payable	\$30,000
Bills Receivable	6,000	Bills Payable	20,000
Real Estate	40,000		
Merchandise	120,000	Total	\$50,000
Cash	5,000	Bal. (Net Capital)...	135,000
Total	\$185,000		\$185,000
Bal. (Net Capital)...	\$135,000	Capital Stock	\$100,000
		Surplus	35,000
	\$135,000		\$135,000

In the first case, the bookkeeper imagines himself at a standpoint midway between the stockholders and the outside world—a standpoint from which he can look in both directions. When he says that the item under the head of Accounts Payable is a liability, he must be looking away from the stockholders, he means liability *of* the stockholders; and when he says that the item under the head of Capital Stock is a liability, he must be looking toward the stockholders, he means liability *to* the stockholders. Since he says that both items are liabilities at the same time, he must be looking in both directions at the same time; in other words, he must be cross-eyed.

In the second case the bookkeeper imagines himself at the standpoint of the stockholders and always looks in one direc-

tion. When he means asset, he says asset; when he means liability, he says liability; and when he means net capital, he says net capital.

The doctrine of equal assets and liabilities is simply a piece of verbal jugglery by which the bookkeeper tries to deceive himself and other people as well, and it owes its success to the fact that the mind easily becomes confused in the use of relative terms. Words like *asset* and *liability*, *right* and *left*, etc., have no meaning unless used from a single fixed standpoint; to use them from the standpoint of a party that faces both ways is to use words without sense. Whenever a person makes a statement involving the use of such words from a double standpoint it is positive proof either of mental confusion on his part or of a deliberate intent to confuse the minds of others. If the reader is not ready to grant the truth of that remark, let him compare these two propositions:

1. In double-entry bookkeeping the total of the assets and the total of the liabilities are necessarily equal, because every item which is asset of the business looking one way is liability of the business looking the other way.

2. In every street the number of buildings on the right-hand side and the number of buildings on the left-hand side are necessarily equal, because every building which is on the right-hand side looking one way is on the left-hand side looking the other way.

The first proposition professes to make a distinction between asset and liability and the second professes to make a distinction between right and left, but in each case it is nothing more than a pretence; from the standpoint of a party that faces both ways the distinction is obliterated.

The reason why the accountant has resorted to the use of relative terms from a double standpoint is obvious. It is because he has never been able to solve the first problem in double-entry bookkeeping, the problem which is involved in

the question stated in Chapter II, namely, Who is the second party in the proprietor's account?

When the accounts are closed and the balances are brought down to new account, the total of the balances brought down as debits always equals the total of the balances brought down as credits; and what the bookkeeper calls his statement of assets and liabilities is simply a tabulation of these balances. Such a statement almost invariably contains three classes of items—items representing asset, items representing liability and items representing net capital. But the bookkeeper has never been able to explain why it is that in some accounts balances brought down to new account represent assets and liabilities, while in other accounts such balances represent net capital; and because he cannot explain it, he tries to conceal his ignorance by juggling with words. But that subterfuge does not help the matter; it leaves it just where it was before.

In corporation accounting the bookkeeper thinks that the company is an intermediate party standing between the stockholders and the outside world (an idea, by the way, which is entirely wrong), and he professes to justify his failure to separate items which represent net capital from those which represent liability, by saying that they all represent liability from the standpoint of the company. Granting, for the sake of the argument, that his conception of a company is correct, he still must admit that his statement contains items representing asset of the company, items representing liability of the company to the public, and items representing liability of the company to the stockholders. What does the bookkeeper think that he gains, when, instead of using clear and definite terms, he resorts to the use of clumsy and inaccurate circumlocutions; when, instead of saying that the items represent asset, liability and net capital, he says that they represent one kind of asset and two kinds of liability? In any case, the fact remains that there are

three classes of items, and therefore the practice of making the statement in a form which would indicate that it contains but two classes of items is false and misleading.

All persons of normal mind, except accountants, instinctively recognize that fact; and even some accountants go so far as to admit it, and propose to remedy the matter by changing one of the headings. In current practice it is customary to head one side of the statement with the word "Assets" or "Resources," and the other side with the word "Liabilities"; and they propose to change the latter heading to "Capital and Liabilities." But that again, is simply to juggle with words. To head a list of items with the legend "Capital and Liabilities" is about as satisfactory as it would be to put up a sign-board at a place where the road forks, saying, "These roads lead to Duxbury and Roxbury." The travelers who read the sign-board do not want to know that the roads lead to Duxbury and Roxbury; they want to know which road leads to Duxbury and which road leads to Roxbury. In like manner, the stockholders of a company do not want to know that a certain list contains items representing net capital and items representing liability; they want to know which items represent net capital and which items represent liability.

Of course the accountant may argue that the stockholders are supposed to be able to separate the items. But if the stockholders can separate them, why does he not do it himself? If his report never contained any items representing net capital except Capital Stock and Surplus, possibly the stockholders could separate them; but in his statement, under the head of "Liabilities," they often find items like "Sinking Fund," for example. Does that item represent a liability, or does it represent a portion of the net capital which is supposed to be reserved for a certain reason? Are the bonds a liability and the sinking fund also a liability? Are liabilities to be counted twice? If the accountant does not

know how to answer such questions, how can he expect the stockholders to know?

The bookkeeper is at fault in that he fails to separate items which represent net capital from those which represent liability, and as long as he fails to make that separation it is idle for him to claim that he knows what his accounts mean. He may plead the sanction of universal custom, or he may offer any other excuse which his ingenuity can devise, but he will never be able to make people believe that a man who has an intelligent idea as to what he is doing and why he does it, would ever place items of such divergent nature under the same heading.

In all languages except English it is customary to head one side of the statement with the word "Active," and the other side with the word "Passive." This custom has its origin in the fact that a debit entry in a ledger account means that the party owes, it corresponds to the active form of the verb, and a credit entry means that the party is owed, it corresponds to the passive form.

But whether the bookkeeper uses the headings "Assets" and "Liabilities," or the headings "Assets" and "Capital and Liabilities," or the headings "Active" and "Passive," is a matter of little consequence. Whatever headings are used, a form of statement in which all debit balances are placed on the one side and all credit balances on the other, without discrimination, is illogical and unintelligible. If double-entry bookkeeping involves the necessity of making statements in that form, it is not a rational system of accounting.

The object of this treatise is to prove that double-entry bookkeeping is a rational process, that it counts assets and liabilities from the natural standpoint, the standpoint of the proprietor (or the proprietors collectively), and that every bookkeeper who prefers the guidance of reason to that of custom and tradition will always make his statements in a form showing assets, liabilities and net capital separately.

CHAPTER IV

DISCUSSION OF THE TECHNICAL TERMS AND THE FUNDAMENTAL RELATIONS OF ACCOUNTING.

The words which express the basic conceptions with which bookkeeping deals, namely, *asset*, *liability*, *loss* and *gain*, are relative terms, and therefore it is necessary to specify the standpoint from which they are used. In other words, it is necessary to have a clear understanding as to whose assets and liabilities and losses and gains we are talking about.

It is an evident fact that any person's assets and liabilities, as well as his losses and gains, are almost invariably unequal, and in single-entry bookkeeping that fact is accepted without any question. But the failure to understand the principles of double-entry bookkeeping has given rise to the idea that in that system of accounting the words *asset* and *liability* cannot be used from the standpoint of a real person nor from the standpoint of a number of real persons taken collectively, but that they must be used from the standpoint of an imaginary intermediate party, and therefore assets and liabilities are always equal. In the case of an individual proprietor the bookkeeper thinks that the intermediate party is the "business," in partnership accounting he thinks that it is the firm, and in corporation accounting he thinks that it is the company.

That idea is entirely wrong; there is no intermediate party. In double-entry bookkeeping, as in any other proper system of accounting, the words *asset* and *liability*, like the words *loss* and *gain*, must be used from the standpoint of the proprietor or the proprietors collectively.

Both in law and in bookkeeping, a company is a fictitious or imaginary person; but it is not an imaginary person separate from the stockholders, it is an imaginary person com-

posed of the stockholders, and a firm is an imaginary person composed of the various partners. In other words, a firm or a company is an imaginary composite person, as distinguished from an actual individual person. The idea that a firm or a company is an imaginary person standing apart from the real persons who compose the organization and between them and the outside world, is an utter absurdity; a firm or a company is merely an association of individuals—apart from the persons who compose it, it has no existence. We cannot separate a firm from its members nor a company from its stockholders; the members are the firm and the stockholders are the company. The words *firm* and *company* are simply what the grammarians call “collective nouns,” the one meaning the partners collectively and the other meaning the stockholders collectively.

When speaking of losses and gains the bookkeeper always uses the words *firm* and *company* in their proper sense. When he says that the firm or the company made a profit of \$20,000 during the year, he means that the partners collectively or the stockholders collectively made a profit of \$20,000. Therefore, in order to have a correct conception of the nature of a business organization, all that the reader needs is to keep in mind the fact that when speaking of assets and liabilities he should use the words *firm* and *company* in the same sense in which he uses them when speaking of losses and gains. In this treatise, then, when we speak of the assets and liabilities of a firm we mean the assets and liabilities of the partners collectively, and when we speak of the assets and liabilities of a company, we mean the assets and liabilities of the stockholders collectively.

As a rule, the books do not cover all the affairs of the person or persons who own the business. In the case of a firm or a company, it is evident that the bookkeeper has nothing to do with the private affairs of the partners or stockholders; and even when the owner is an individual, he

usually makes a distinction between his personal affairs and his business affairs, and the bookkeeper is concerned only with the latter. It is, therefore, necessary to specify further that whenever the words *asset*, *liability*, *loss* and *gain* are used in this treatise, they refer to that portion, and only to that portion, of the proprietor's assets and liabilities and losses and gains which pertains to the business whose accounts we are keeping.

It will be noted that in speaking of the proprietor's assets and liabilities which pertain to the business, we are not personifying the business; we are not using the words *asset* and *liability* from the standpoint of the business, but from the standpoint of the proprietor. In the case of an individual proprietor, the words are used from the standpoint of that individual; in the case of a firm, they are used from the standpoint of the partners collectively; and in the case of a company, they are used from the standpoint of the stockholders collectively. In all three cases, assets and liabilities, like losses and gains, are almost invariably unequal.

I have been thus particular in specifying the standpoint from which relative terms are used in accounting, because otherwise it would be impossible to discuss the subject of double-entry bookkeeping coherently; and moreover, it is right here that the ordinary text-books beg the question. Among the text-books which accept the doctrine of equal assets and liabilities, I have never seen one in which the author gives any definite information as to whose assets and liabilities and losses and gains he is talking about. When he speaks of property belonging to the proprietor as representing asset, and of debts owed by the proprietor as representing liability, one naturally supposes that he is talking about the assets and liabilities of the proprietor. Finally, however, he makes a statement showing assets and liabilities equal, and then, if he thinks it worth while to say anything

at all, he says that the statement shows the assets and liabilities of the "business."

But he also makes another statement, showing losses and gains unequal, and therefore it is evident that although he professes to be dealing with the assets and liabilities of the business, he is dealing with the losses and gains of the proprietor. Now, losses and gains are simply changes in assets and liabilities, and the question as to how he can count assets and liabilities from one standpoint and losses and gains from another, how he can count assets and liabilities from a standpoint which makes them equal and losses and gains from a standpoint which makes them unequal, is a subject on which he is most discreetly silent.

The distinction between the owner's personal affairs and his business affairs gives rise to the idea of putting capital into the business and of drawing capital out of the business. When the owner puts capital into the business the operation is called a contribution; when the owner draws capital out of the business the operation is called a withdrawal; every other operation involving income or outgo or both is called a transaction.

The words *income* and *outgo*, as used in bookkeeping, are similar to the words *gain* and *loss*, but they have a broader meaning. When the owner contributes capital there is income (increase of asset pertaining to the business), but this income is not gain; when the owner withdraws capital there is outgo (decrease of asset pertaining to the business), but this outgo is not loss; in every other case income is gain and outgo is loss. Income and outgo, then, are changes in assets and liabilities, inclusive of changes due to contributions and withdrawals; gains and losses are changes in assets and liabilities, exclusive of changes due to contributions and withdrawals.

It will be noted that according to the above definition

the word *loss* (and therefore its opposite, *gain*) has a wider meaning in bookkeeping than in ordinary language. Ordinarily, the use of the word *loss* is confined to cases which involve an idea of waste, but in bookkeeping it is not limited to such cases. For example, the consumption of fuel for a useful purpose would not be called loss in the ordinary sense of the word, but in bookkeeping it is regarded as loss. Apart from contributions and withdrawals, every decrease of asset or increase of liability is loss, and every increase of asset or decrease of liability is gain.

An asset is a financial resource—it may be a debt owed to the proprietor or it may be anything owned by the proprietor, the value of which can be expressed in terms of money—and a liability is an obligation to pay for something which has already been received. A contract to buy a certain thing at a certain price at some future date is an obligation to pay; but it is not a liability, in the bookkeeping sense, because the thing for which payment is to be made has not yet been received. As long as the thing to be paid for cannot be counted as an asset, the obligation to pay for it cannot be counted as a liability. An agreement to pay a certain sum in the course of a year for the rent of a building is an obligation to pay; but it is not a liability, because the tenant has not yet had the use of the building. The tenant's liability at any given time is determined by the amount of unpaid rent which has accrued to date. If the tenant pays rent in advance, then, at any given time, the amount of rent prepaid is an asset from the standpoint of the tenant and a liability from the standpoint of the landlord. When money is borrowed to be repaid at some future date with interest, the principal is a liability, because that amount has been received; but the interest becomes a liability only as it accrues. When a bank discounts a note, that is to say, deducts the amount of the interest and gives the remainder

to the borrower, the prepaid interest is an asset from the standpoint of the borrower and a liability from the standpoint of the bank.

The meaning of the words *asset* and *liability*, as used in bookkeeping, differs somewhat from the common usage. This difference is due to the fact that while in ordinary language the words are of nearly opposite meaning, in bookkeeping they are exact opposites. In double-entry bookkeeping the words *asset* and *liability* must necessarily be used as exact opposites, because the system is based upon the use of the words *debtor* and *creditor*, which are exact opposites. It is, therefore, impossible to convey the precise meaning of the words *asset* and *liability* by defining each of them separately. The only way to give the correct meaning of the words is to define each of them as nearly as possible, and then to add: Whatever meaning the word *asset* may have, the word *liability* has the opposite meaning; whatever meaning the word *liability* may have, the word *asset* has the opposite meaning. If merchandise bought is an asset, merchandise sold is a liability; if cash received is an asset, cash paid out is a liability. Anything which offsets an asset is a liability; anything which offsets a liability is an asset.

The fact that, as a rule, the proprietor has certain liabilities as well as certain assets gives rise to the idea of net capital. In arithmetical language the net capital is the difference between the assets and the liabilities; in algebraical language it is the sum of the assets and the liabilities. Most writers use the term *net capital* only when the assets exceed the liabilities; when the liabilities exceed the assets, they call the difference the *net insolvency*. But when used in its proper sense there is no such limitation to the meaning of the term *net capital*. In mathematical language, the result obtained by subtracting the total of the liabilities from the total of the assets is the net capital, no matter whether the

result be positive, negative or zero. In bookkeeping language, the balance of the proprietor's account is the net capital, no matter whether it be brought down as a credit or as a debit or whether it be zero. When the assets exceed the liabilities, the excess is the net asset; when the liabilities exceed the assets, the excess is the net liability. Net asset is positive net capital; net liability is negative net capital. It should be noted, however, that in bookkeeping the distinction between positive and negative net capital is not indicated by the use of those words, nor by the use of the signs "+" and "-", but by the fact that in the one case the balance of the proprietor's account is brought down as a credit and in the other case as a debit. It should be noted, also, that usually, when we speak of net capital, we mean positive net capital, since under normal conditions the net capital is positive, that is to say, the assets exceed the liabilities. When we wish to indicate negative net capital, as distinguished from positive net capital, we call it the net liability. But, nevertheless, the term *net capital* when used in its full sense includes both positive and negative net capital.

The effect of the algebraical term *negative* is to reverse the sense in which expressions are used. When a positive quantity becomes smaller we say that it decreases, but when a negative quantity becomes smaller we say that it increases. If, for example, we use the term *net liability* and assume that it was \$20,000 and is now \$10,000, we say that the net liability has decreased. But if we use the term *net capital* and assume that it was -\$20,000 and is now -\$10,000, we say that the net capital has increased. Every change in the net capital which is favorable to the proprietor is an increase or gain, and every change which is unfavorable to the proprietor is a decrease or loss, no matter whether the net capital be positive or negative.

The advantage of having a term which can be used both in the positive and in the negative sense is that it gives us a

more compact form of expression. If we had only the terms *net asset* and *net liability*, or if we used *net capital* to mean net asset and *net insolvency* to mean net liability, we would often have to explain general propositions three times, once on the assumption that the assets exceed the liabilities, again on the assumption that the liabilities exceed the assets, and again on the assumption that the assets and liabilities are equal, since the wording would differ in the various cases. But if we use the term *net capital* to mean net asset when positive and net liability when negative, one explanation is sufficient. The principles which apply to any given case are independent of the amount of the net capital, whether it be large or small, whether it be positive, negative or zero.

In this discussion it is necessary to keep clearly in mind the difference between arithmetical language and algebraical language. Arithmetic uses the signs “+” and “—” only to indicate addition and subtraction, it does not recognize the algebraical distinction between positive and negative; it deals only with positive quantities. In arithmetic the difference between two quantities is the result obtained by subtracting the smaller from the greater; in algebra the difference between two quantities is the result obtained by subtracting the second one from the first. In arithmetic the difference between 7 and 3 is 4, and the difference between 3 and 7 is 4 ($7 - 3 = 4$); in algebra the difference between 7 and 3 is 4 ($7 - 3 = 4$), and the difference between 3 and 7 is — 4 ($3 - 7 = -4$).

In arithmetical language both assets and liabilities are positive, but in algebraical language liabilities are simply negative assets. The result is that in using the terms *sum* and *difference* as applied to assets and liabilities, algebraical language is just the reverse of arithmetical language. If, in a given case, the total of the assets is \$40,000 and the total of the liabilities is \$10,000, then, in arithmetical language the sum of the two is \$50,000 ($40,000 + 10,000 =$

50,000), and the difference between the two is \$30,000 ($40,000 - 10,000 = 30,000$); but in algebraical language the sum of the two is \$30,000 [$40,000 + (-10,000) = 30,000$], and the difference between the two is \$50,000 [$40,000 - (-10,000) = 50,000$].

In algebraical language the relations which assets, liabilities, income, outgo, gains, losses, contributions, withdrawals and net capital bear to each other may be expressed as follows:

The sum of the assets (and liabilities) at any given time is the net capital at that time.

The difference between the net capital at the end of a period and the net capital at the beginning is the net income (or outgo) during the period.

The difference between the net income (or outgo) and the net amount contributed (or withdrawn) is the net gain (or loss).

In strict usage of algebraical language the words in parentheses would be omitted, since a liability is simply a negative asset, outgo is negative income, a withdrawal is a negative contribution, and loss is negative gain.

If anyone should try to state the above relations in arithmetical language, he would find that there are a great many possible cases (assets greater than liabilities, assets less than liabilities, assets and liabilities equal, net capital at close greater than at beginning, net capital at close less than at beginning, etc., etc.), and he would have to make a separate statement for each case; but when algebraical language is used, the one statement covers every possible case. Algebraical language bears the same relation to arithmetical language that the language of double-entry bookkeeping bears to the language of single-entry bookkeeping—it is more compact,

CHAPTER V

DEBTS—THE ACCRUING AND MATURING OF DEBTS—DEBTS ARE RECORDED AS IF PAYABLE ON DEMAND—GOOD DEBTS ARE ASSETS AND LIABILITIES, BAD DEBTS REPRESENT LOSSES AND GAINS—THE WORDS “GOOD” AND “BAD” AS APPLIED TO DEBTS ARE NOT OPPOSITES.

At first thought one might have the impression that a debt owed to the proprietor is always an asset and that a debt owed by the proprietor is always a liability. But it is evident that a debt owed to the proprietor is not an asset unless it will be paid; and, therefore, if the words *asset* and *liability* are exact opposites, a debt owed by the proprietor is not a liability unless it will be paid.

When we think that a debt will be paid, we call it “good”; when we think that a debt will not be paid, we call it “bad.”

A debt, then, can be counted as an asset or as a liability only on the assumption that it is good, that is to say, that it will be paid; assuming that it will be paid only in part, it can be counted as an asset or as a liability only to that extent.

There is, however, a distinction to be made between debts owed to the proprietor and debts owed by the proprietor. The books are kept on the assumption that all lawful debts owed by the proprietor will be paid; whereas, some of the lawful debts owed to the proprietor may not be paid. In other words, lawful debts owed by the proprietor are liabilities, but lawful debts owed to the proprietor are not necessarily assets. This distinction must be made because lawful debts owed by the proprietor, no matter whether they will be paid or not, are liabilities in the legal sense of the term, and the only way to bring the bookkeeping definition into harmony with the legal definition is to assume that all such debts will be paid. That assumption is a natural one, because as long as a man continues in business he must at least pretend that

his lawful debts will be paid; to admit that they will not be paid is to admit that he is bankrupt. But only lawful, or real, debts owed by the proprietor are necessarily liabilities; in double-entry bookkeeping we deal with imaginary as well as real debts, therefore there may be debts owed by the proprietor which are not liabilities.

In discussing the subject of accounting we often have occasion to speak of the accruing of debts. In ordinary language *to accrue* means to happen or result as a natural growth, it conveys an idea of addition or increment; but as used in bookkeeping, it means simply to come into existence. Some debts accrue all at once, and others are accruing all the time. When money is loaned at interest the debt, in the case of the principal, accrues at the time of making the loan, while it does not mature until the date fixed for payment; but in the case of the interest, the debt accrues with the lapse of time, and matures at certain fixed dates.

There is, then, a distinction between the accruing of a debt and the maturing of a debt; but the ledger form is not adapted to the expression of that distinction. The ledger entry shows when the debt accrues, or the amount which has accrued to date, but there is nothing to indicate when the debt matures. It follows, therefore, that we must keep the books on the assumption that a debt matures as soon as it accrues, that all debts are payable on demand. A debt due at some future date may be perfectly good, yet if it does not draw the current rate of interest its present value differs from its face value to the extent of the interest involved. If it draws more than the current rate of interest, its present value is greater than its face value; if it draws less than the current rate, its present value is less than its face value. When the fact that a debt is not payable on demand causes its present value to differ from its face value, the difference (the premium or discount) is carried as an asset or as a liability under a separate heading.

In other words, we use two debts payable on demand to represent the present value of a debt due at some future date.

The fact that all debts are recorded as if payable on demand is the origin of one of the fundamental conceptions of accounting, namely, that all good debts are present assets and liabilities. A good debt owed by us is a liability by definition, and if regarded as payable on demand, it is a present liability; and a good debt owed to us, if regarded as payable on demand, is a present asset, since a good debt payable to us on demand is practically the same thing as cash in hand.

The assumption that all debts are payable on demand carries with it the assumption that all debts are good at the time when they are contracted. If we lend money to any person and the debt is payable on demand, then, if we demand immediate payment the debt is good, because he has the money with which to pay it. Later, however, he may not have the money and the debt may become bad. If a debt which was good at the time when it was contracted is now wholly or partially bad, it has changed in value, and that change is loss or gain.

Good debts are assets and liabilities; bad debts are not losses and gains, but they indicate that losses and gains have occurred. If any person owes a debt to us it is because we have lent an equivalent amount to him. If, now, he will not pay the debt, if the debt is bad, we lose what we lent to him; therefore a bad debt owed to us represents loss. If we owe a debt to any person it is because we have borrowed an equivalent amount from him. If, now, we will not have to pay the debt, if the debt is bad, we gain what we borrowed from him; therefore a bad debt owed by us represents gain.

When we borrow from Cash and lend to Expense, Expense owes us and we owe Cash; we debit Expense and credit Cash. The debt which Expense owes to us is bad, it represents loss; the debt which we owe to Cash is good, it is a lia-

bility. When we borrow from Interest and lend to Cash, Cash owes us and we owe Interest; we debit Cash and credit Interest. The debt which Cash owes to us is good, it is an asset; the debt which we owe to Interest is bad, it represents gain.

An imaginary debt, that is to say, a debt between the proprietor and an imaginary person, is good if it represents a real debt which is good, or if it represents a tangible asset or an offset to such an asset; otherwise it is bad. A debt between the proprietor and Expense for expenses which have accrued and have not been paid is good, because it represents a real debt. Unpaid expense is a liability. A debt between the proprietor and Expense for expenses which have accrued and have been paid is bad, because the real debt has been paid. Expenses which have accrued and have been paid represent loss. A debt between the proprietor and Expense for expenses which have been paid but have not yet accrued is good, because there is a real debt or a tangible asset corresponding to it. Prepaid expense is an asset.

As an example to illustrate imaginary debts and to show how they may change in value, we will assume that at the beginning of the month we buy \$100 worth of coal and record the transaction by debiting Expense and crediting Cash, and that at the end of the month we have three-quarters of the coal left. In this case it is very evident that the debt of \$100 which the person called Expense owes us was perfectly good at the time when it was recorded, it represented an asset in the form of coal; but now at the end of the month the debt is good to the amount of \$75 and bad to the amount of \$25. This debt, then, which did represent an asset of \$100, now represents an asset of \$75 and a loss of \$25.

Double-entry bookkeeping is pre-eminently the science of opposites. It is based upon the idea of owing and of being owed, upon the use of the words *debtor* and *creditor*, which

are opposites. The words *asset* and *liability* are opposites; the words *income* and *outgo* are opposites; the words *gain* and *loss* are opposites. These words are used in a relative sense, they mean asset or liability, income or outgo, gain or loss, from the standpoint of the proprietor; and when we say that they are opposites, we mean that they are opposites from the standpoint of the proprietor.

Two equal debts which are opposites from the standpoint of the proprietor always offset each other if they are good, but they do not necessarily cancel each other; they cancel each other only when they are opposites from the standpoints of all parties concerned. If Smith owes the proprietor \$100 and the proprietor owes Jones \$100, the two debts are opposites from the standpoint of the proprietor, but they are not opposites from the standpoints of Smith and Jones, and therefore they do not cancel each other. But if Smith owes the proprietor \$100 and the proprietor owes Smith \$100, the two debts are opposites both from the standpoint of the proprietor and from the standpoint of Smith, and therefore they cancel each other.

But while the words *asset* and *liability*, *income* and *outgo*, *gain* and *loss*, are used in a relative sense and are opposites, the words *good* and *bad*, as applied to debts, are used in an absolute sense and are not opposites. If these words were used in a relative sense, if they meant good or bad from the standpoint of the proprietor, then, in the case of a debt owed to the proprietor, if we thought that it would be paid we would call it "good," and if we thought that it would not be paid we would call it "bad"; whereas, in the case of a debt owed by the proprietor, if we thought that it would have to be paid we would call it "bad," and if we thought that it would not have to be paid we would call it "good." But that is not the meaning of the words as used in bookkeeping. When we think that a debt will be paid, whether owed to the proprietor or by the proprietor, we call it "good";

when we think that a debt will not be paid, whether owed to the proprietor or by the proprietor, we call it "bad."

It is evident also that the words *good* and *bad*, as applied to debts, are not used as opposites. If Brown owes us \$100, then to say that the debt is good means that he will pay us \$100, and to say that it is bad means that he will not pay us anything; therefore if the debt is bad we lose \$100. But if the words *good* and *bad* were used as opposites, then to say that the debt is good would mean that Brown will pay us \$100, and to say that it is bad would mean that we must pay him \$100. In that case, if the debt were bad, we would lose \$200. *Bad* as applied to debts is the negation of *good*, it is not the opposite of *good*.

The distinction between one expression being the negation of another and one expression being the opposite of another is an important one in double-entry bookkeeping; but it is one which in ordinary language and in ordinary affairs is rarely brought out. The following propositions will make the distinction clear:

1. A statement and its negation mutually exclude each other.

For example:

The debt will be paid.

The debt will not be paid.

Both statements cannot be true, nor can both be false; to the extent to which one is true the other must be false, and to the extent to which one is false the other must be true.

2. A statement and its opposite do not necessarily exclude each other, but if both are true they neutralize each other, and the effect is the same as if both were false.

To say that Smith owes Jones \$100 and Jones owes Smith \$100 is equivalent to saying that neither of them owes anything to the other. To say that a certain transaction involves equal loss and gain is equivalent to saying that it involves

no loss nor gain. To say that a certain item is both an asset and a liability of the same party is equivalent to saying that it is neither an asset nor a liability.

The reader will note the application of this principle to the common theory of double-entry bookkeeping. The assets and liabilities of the "business" are necessarily equal only on the assumption that every item which is asset or liability at all is both an asset and a liability; therefore to say that the assets and liabilities of the business are necessarily equal is equivalent to saying that the business has no assets and no liabilities. To predicate the condition of necessary equality is to wipe out the idea of asset and liability altogether.

Asset is the opposite of liability; but net asset is not the opposite of liability, it is the negation of liability. To determine the net asset we exclude all of the liabilities and an equal amount of the assets, and what remains is the net asset.

Net liability is not the opposite of asset, it is the negation of asset. To determine the net liability we exclude all of the assets and an equal amount of the liabilities, and what remains is the net liability.

Gain is not the opposite of liability, it is the negation of liability. A debt owed by the proprietor to an outside party must represent either liability or gain; to deny that it represents liability is to affirm that it represents gain.

Loss is not the opposite of asset, it is the negation of asset. A debt owed to the proprietor by an outside party must represent either asset or loss; to deny that it represents asset is to affirm that it represents loss.

Net asset is the negation of all liability; gain is the negation of some liability; therefore net asset includes gain.

Net liability is the negation of all asset; loss is the negation of some asset; therefore net liability includes loss.

Gain is an addition to the net asset (or a deduction from

the net liability) ; loss is an addition to the net liability (or a deduction from the net asset).

The difference between an expression and its opposite is twice as great as the difference between the same expression and its negation. The negation of having an asset of \$100 is not having it, and the difference between having it and not having it is \$100. But the opposite of having an asset of \$100 is having a liability of \$100, and the difference between having an asset of \$100 and having a liability of \$100 is \$200.

If an item of \$100 is counted under one heading when it should be counted under the opposite heading, the amount of the error is \$200 ; but if the item is counted under one heading when it should be counted under the negation of that heading, the amount of the error is \$100. If the item is counted as asset when it should be counted as liability, the amount of the error is \$200 ; if the item is counted as gain when it should be counted as loss, the amount of the error is \$200. But if the item is counted as asset when it should be counted as loss, the amount of the error is \$100 ; if the item is counted as liability when it should be counted as net asset, the amount of the error is \$100.

CHAPTER VI

ABSTRACT AND CONCRETE CONCEPTIONS.

Double-entry bookkeeping is based upon the idea of debt and that idea involves the person who owes, the thing which is owed, and the person to whom it is owed. In the case of good debts the word *debt* may be used both in the abstract and in the concrete sense. In the abstract sense it means the relation between the two persons, the state of owing and of being owed; in the concrete sense it means the thing which is owed. In the case of bad debts the word *debt* has only an abstract meaning. A bad debt is simply a relation between two persons; there is nothing concrete about it, since the thing which is owed fails to materialize.

In the abstract sense the words *asset* and *liability* express relations, but in the concrete sense they mean the things which are related. In the concrete sense an asset or a liability is a certain thing in a certain relation to a certain person. In the case of a good debt the thing which is owed is an asset from the standpoint of the person to whom it is owed and a liability from the standpoint of the person who owes it.

In the abstract sense the words *loss* and *gain* express changes, but in the concrete sense they mean the things which have been lost or gained. When we speak of distributing profits in dividends, we are using the word *profit*, or *gain*, in the concrete sense; we mean that we distribute that which has been gained.

When both sets of words are used in the concrete sense, assets and liabilities include gains and losses, since a thing which has been gained is simply a new asset, and a thing which has been lost is a new liability. But in bookkeeping the words *asset* and *liability* are used in the concrete sense and the words *loss* and *gain* are used in the abstract sense.

The words *asset* and *liability*, then, express concrete con-

ceptions; the words *loss* and *gain* express abstract conceptions. Assets and liabilities are things which exist; losses and gains are changes which occur. We speak of the assets and liabilities which exist at the end of a certain period; but we speak of the losses and gains which have occurred during the period. The words *asset* and *liability* suggest the question, What is the form of the asset or liability? The words *loss* and *gain* suggest the question, What is the cause of the loss or gain? Speaking of assets and liabilities, we would say that the asset in question is in the form of a debt owed to the proprietor by Cash, or that the liability in question is in the form of a debt owed by the proprietor to John Smith; but speaking of losses and gains, we would say that the loss in question was caused by Expense, or that the gain in question was caused by Interest.

Assets and liabilities are classified according to their various forms; losses and gains are classified according to their various causes.

Since the words *asset* and *liability* are opposites and the words *income* and *outgo* are opposites, income of asset is the same as outgo of liability and outgo of asset is the same as income of liability. But in order to give the words *income* and *outgo* a definite meaning when used alone, we always use them with reference to asset; *income* meaning income of asset (or outgo of liability), and *outgo* meaning outgo of asset (or income of liability). *Income*, then, means increase of asset or decrease of liability; outgo means decrease of asset or increase of liability. But the ledger form of debit and credit is adapted to addition only; it does not admit of subtraction. Therefore income is never expressed as decrease of liability, it is always expressed as increase of asset; outgo is never expressed as decrease of asset, it is always expressed as increase of liability.

The words *income* and *outgo*, like the words *asset* and *liability* and the words *gain* and *loss*, may be used both in

the concrete and in the abstract sense. In the concrete sense, an income is a thing which has come in; in the abstract sense it is the act of coming in. The thing which has come in is a new asset; the act of coming in is gain. In the concrete sense, an outgo is a thing which has gone out; in the abstract sense it is the act of going out. The thing which has gone out is a new liability; the act of going out is loss.

When we speak of the form of an income, we are using the word *income* in its concrete sense, it means a new asset; when we speak of the cause of an income, we are using the word *income* in its abstract sense, it means gain. Income in the form of merchandise is not gain, it is asset; income caused by dealing in merchandise is not asset, it is gain.

When we speak of the form of an outgo, we are using the word *outgo* in its concrete sense, it means a new liability; when we speak of the cause of an outgo, we are using the word *outgo* in its abstract sense, it means loss. Outgo in the form of merchandise is not loss, it is liability; outgo caused by dealing in merchandise is not liability, it is loss.

With reference to this distinction it should be noted that when, for example, the accruing of interest in our favor causes an income of cash, it causes the income, that is to say, the act of coming in, but it does not cause the cash; it causes the gain, but it does not cause the asset. We cannot associate the idea of cause with things which exist; we can only associate it with changes which occur.

Bookkeeping deals with numbers which express value and such numbers may be concrete or they may be abstract. The fact that a number is followed by the word "dollars" does not necessarily make it concrete. The expression "one hundred dollars," if it refers to certain specified coins and means those identical coins, is a concrete number; but if it means simply value to the amount of \$100, it is an abstract number. Numbers which express value, but not the form in which the value exists, are abstract numbers; while num-

bers which express value, and the form in which the value exists, are concrete numbers. For example, \$5,000, \$10,000, \$15,000, \$20,000, these are abstract numbers; but \$5,000 in cash, \$10,000 in accounts receivable, \$15,000 in merchandise, \$20,000 in real estate, these are concrete numbers.

It will be noted that the difference between the concrete and the abstract, as those words are used in connection with numbers, is the difference between the specific and the general. Now, for every specific change, that is to say, for every change in any particular asset or liability, there is, of course, a corresponding general change, that is to say, a corresponding change in the total of the assets or liabilities. The number which expresses the change in the particular asset or liability is a concrete number; but the number which expresses the corresponding change in the total of the assets or liabilities is an abstract number. A change in any particular asset or liability is called *outgo* or *income*, while the corresponding change in the total of the assets or liabilities is called *loss* or *gain*. In other words, we generally use the terms *outgo* and *income* in the concrete sense, and the terms *loss* and *gain* in the abstract sense. If, for example, the cash on hand at the end of the period is greater than it was at the beginning, the increase in the amount of cash is called *income* in the form of cash, while the corresponding increase in the total of the assets is called *gain*.

Changes in the various assets and liabilities are classified according to the form of the assets and liabilities which change, while changes in the totals of the assets and liabilities are classified according to the causes which produce the changes. Of course the aggregate of the changes in the various assets and liabilities is the same as the aggregate of the changes in the totals of the assets and liabilities, and therefore the net income is always the same as the net gain (except that income caused by contributions is not counted as gain), and the net *outgo* is always the same as the net loss (except that *outgo* caused by withdrawals is not counted as loss).

CHAPTER VII

DOUBLE-ENTRY BOOKKEEPING REGARDS ALL BUSINESS AS A MATTER OF BORROWING AND LENDING—DISCUSSION OF THE IDEA OF PERSONIFICATION—RULE FOR RECORDING TRANSACTIONS AND EXAMPLES ILLUSTRATING IT—THE RULE FOR DEBITING AND CREDITING IS NEVER REVERSED.

Since debts are the results of loans, a system of accounting that keeps all the records in the form of debts must necessarily be based upon the idea that all business is simply a matter of borrowing and lending. At first thought that idea would seem untenable, but in reality there is nothing far-fetched about it. The typical operation in business is buying and selling, and every case of buying and selling can be stated as a case of borrowing and lending. If, for example, Smith sells a pair of shoes to Jones for \$5.00, we can state the case just as well by saying that Smith borrows \$5.00 in cash from Jones and lends him \$5.00 in merchandise; therefore each of them owes \$5.00 to the other, and therefore neither of them owes anything to the other; the two debts cancel each other.

At the beginning, then, we must pretend that we borrow the amounts of the liabilities from certain persons and lend the amounts of the assets to certain other persons; afterwards, in recording the amount involved in each transaction, we must pretend that we borrow it from one person and lend it to another. It follows, therefore, that double-entry bookkeeping must use figurative language; it must personify the headings of the accounts. All such titles as Cash, Merchandise, Interest and Expense must be regarded as the names of imaginary persons from whom we borrow and to whom we lend.

Bookkeepers have always had a vague idea of personification, but they have never followed it to its logical conclusion.

Apparently they have never been able to apprehend the evident fact that if a man's assets and liabilities are always in the form of debts it is impossible that he should ever keep anything in his possession. The consequence is that they have never been able to make a clear distinction between the inside parties and the outside parties in accounting. Instead of adopting the figurative conception of business in place of the literal conception, they try to combine the two. In the case of a mercantile business, for example, they always conceive of an ordinary store containing a stock of merchandise, and regard Cash, Merchandise, etc., as imaginary employees of the proprietor, as inside parties.

That idea is entirely wrong. In double-entry bookkeeping the merchant has no store; he has nothing but an office, and nothing in the office but a desk and a set of books. The proprietor (that is to say, the proprietor or the proprietors collectively) is the only inside party; he attends to all the business himself; no one else has anything to do with it.

If a salesman comes in and sells him \$100 worth of goods, the merchant goes across the street to a man named Cash and borrows \$100 from him. He gives the money to the salesman and the salesman gives him the goods. The merchant then takes the merchandise down the street to a man named Merchandise and lends it to him. Finally he returns to his office and records in his books the fact that he borrowed \$100 from Mr. Cash and lent \$100 to Mr. Merchandise. In other words, he debits Merchandise and credits Cash.

If a customer comes in to buy \$10 worth of goods, the merchant goes down the street to the man named Merchandise and borrows from him the merchandise which the customer wishes to buy. He gives the goods to the customer and the customer gives him the money. The merchant then takes the money across the street to the man named Cash and lends it to him. Finally he returns to his office and records in his books the fact that he borrowed \$10 from Mr. Merchandise

and lent \$10 to Mr. Cash. In other words, he debits Cash and credits Merchandise.

The point to be observed is that the imaginary persons, Cash, Merchandise, Interest, Expense, etc., are not employees of the proprietor; they have no more to do with the business than any other person (Smith, Jones or Brown, for example) from whom the proprietor borrows or to whom he lends; they are outside parties.

Moreover, the outside parties are the only ones who have anything on hand; the proprietor's assets and liabilities are always in the form of debts, and therefore he cannot have anything in his possession. When we speak of counting the cash, we do not mean the cash which the proprietor has on hand (he never has anything on hand), we mean the cash which the person called Cash has on hand. When we speak of taking inventory of the merchandise, we do not mean the merchandise which the proprietor has on hand (he never has anything on hand), we mean the merchandise which the person called Merchandise has on hand. We count the cash and take inventory of the merchandise which these parties have on hand, simply to determine whether the debts which they owe to the proprietor are good or not. Since Cash and Merchandise have no cash or merchandise except what the proprietor has lent to them, the amount which each of them has on hand determines the amount which he will pay on the debt which he owes to the proprietor; in other words, it determines to what extent the debt is good, and to what extent (if any) the debt is bad. If Cash and Merchandise were real persons, possibly we might need an order of the court to authorize us to go into their places of business and count their cash and take inventory of their merchandise; but since they are only imaginary persons, we can perform those operations without any legal formality.

The reader can hardly fail to notice the similarity between the imaginative part of double-entry bookkeeping and the

“play” of children. When the bookkeeper says that he borrows from Cash and lends to Expense, he is simply “playing” that he does it; just as a little girl plays that she is having a tea-party, or as a little boy plays that a row of chairs is a railroad train. But there is this difference; the child in its play is merely amusing itself, whereas the bookkeeper, by “playing” that he is dealing with men named Cash, Merchandise, Interest, Expense, etc., has developed one of the most compact methods of expression that have ever been devised by the human mind.

Beginners in bookkeeping seem to have the idea that single-entry bookkeeping is very simple, while double-entry bookkeeping is very complex; but as a matter of fact, it is the wonderful simplicity of double-entry bookkeeping which has caused the almost total abandonment of single-entry bookkeeping. Probably, too, in its very simplicity is to be found the reason why double-entry bookkeeping has never been understood. Children can play games of “pretending,” and play them right; but when grown men try to do it they are liable to make a muddle of it, for the simple reason that they lack that vivid imagination which is characteristic of childhood.

The bookkeeper’s idea of personification is so vague that in practice he is inclined to take everything literally, to think that Cash means cash and Merchandise means merchandise, and therefore in many cases his ideas are the reverse of what they should be. For example, he often states a rule to this effect: Debit what you receive, credit what you give. That rule, as it stands, is an absurdity. We cannot debit or credit a *thing*; we can only debit or credit a *person*. In bookkeeping, whenever we receive we borrow and whenever we give we lend, therefore the rule should be stated in just the opposite form: Credit the person from whom you receive, debit the person to whom you give. In

that form the rule means something; in fact its meaning is so clear that it needs no explanation.

The following examples will serve to illustrate the rule, and to show how the accountant must exercise his imagination in order to understand the figurative language of double-entry bookkeeping.

1. We buy merchandise to the amount of \$1,000 from John Smith on account.

We receive from Smith and give to the person called Merchandise, therefore Merchandise owes us and we owe Smith; we debit Merchandise and credit Smith.

2. We sell merchandise to the amount of \$100 to Wm. Jones on account.

We receive from the person called Merchandise and give to Jones, therefore Jones owes us and we owe Merchandise; we debit Jones and credit Merchandise.

3. We sell merchandise to the amount of \$300 to Thos. Brown for cash.

We receive from the person called Merchandise, therefore we credit Merchandise; we give to Brown, therefore we debit Brown; we receive from Brown, therefore we credit Brown; we give to the person called Cash, therefore we debit Cash. Since the debit and credit to Brown cancel each other, the entries are omitted.

4. We buy merchandise to the amount of \$80 from Robert Johnson for cash.

We receive from the person called Cash, therefore we credit Cash; we give to Johnson, therefore we debit Johnson; we receive from Johnson, therefore we credit Johnson; we give to the person called Merchandise, therefore we debit Merchandise. Since the debit and credit to Johnson cancel each other, the entries are omitted.

5. We make a payment of \$50 to Frank Robinson for rent.

We receive the money from the person called Cash, give

it to the person called Expense, and Expense gives it to Robinson. When we receive the money from Cash, we credit Cash; when we give it to Expense, we debit Expense; when Expense gives the money to Robinson, we are not a party to the transaction and therefore we do not record it.

6. Geo. Clark makes a payment of \$40 to us for interest.

Clark gives the money to the person called Interest, Interest gives it to us and we give it to the person called Cash. When Clark gives the money to Interest we are not a party to the transaction and therefore we do not record it. When we receive the money from Interest, we credit Interest; when we give it to Cash, we debit Cash.

It will be noted that according to this conception of double-entry bookkeeping we do not personify the business; there are no debts owed to the business or by the business; every one of the debts is owed either to the proprietor or by the proprietor.

To record the above transactions in bookkeeping form (writing the headings in full), the entries are as follows:

JOURNAL

	<i>Dr.</i>	<i>Cr.</i>
1st Transaction—		
Merchandise owes the proprietor and John Smith is owed by the proprietor,		
Merchandise, to Proprietor.....(1)	\$1,000	
John Smith, to Proprietor.....(2)		\$1,000
2nd Transaction—		
Wm. Jones owes the proprietor and Merchandise is owed by the proprietor,		
Wm. Jones, to Proprietor.....(3)	100	
Merchandise, to Proprietor.....(4)		100
3rd Transaction—		
Cash owes the proprietor and Merchandise is owed by the proprietor,		
Cash, to Proprietor.....(5)	300	
Merchandise, to Proprietor.....(6)		300
4th Transaction—		
Merchandise owes the proprietor and Cash is owed by the proprietor,		
Merchandise, to Proprietor.....(7)	80	
Cash, to Proprietor.....(8)		80

5th Transaction—

Expense owes the proprietor and Cash is owed by the proprietor,

Expense, to Proprietor.....(9) 50

Cash, to Proprietor.....(10) 50

6th Transaction—

Cash owes the proprietor and Interest is owed by the proprietor,

Cash, to Proprietor.....(11) 40

Interest, to Proprietor(12) 40

LEDGER

Dr.	Merchandise To Proprietor		Cr.	Dr.	John Smith To Proprietor		Cr.
(1)	\$1,000	(4)	\$100		(2)	\$1,000	
(7)	80	(6)	300				

Dr.	Wm. Jones To Proprietor		Cr.	Dr.	Cash To Proprietor		Cr.
(3)	\$100			(5)	\$300	(8)	\$80
				(11)	40	(10)	50

Dr.	Expense To Proprietor		Cr.	Dr.	Interest To Proprietor		Cr.
(9)	\$50				(12)	\$40	

By taking the difference between the two sides in each of the above accounts we get the following results:

Merchandise owes the proprietor.....	\$680
Cash owes the proprietor.....	210
Wm. Jones owes the proprietor.....	100
Expense owes the proprietor.....	50
	<u>\$1,040</u>

John Smith is owed by the proprietor.....	\$1,000
Interest is owed by the proprietor.....	40
	<u>\$1,040</u>

In order to determine the assets and liabilities and the losses and gains we must appraise the values of these debts.

To estimate the value of the debt of \$680 which the person called Merchandise owes us, we take an inventory of the merchandise which he has on hand. The value determined by inventory is the amount which he will pay, and represents an asset. If the asset equals the amount of the debt, there is no loss nor gain; if the asset is less than the amount of the debt, the difference is loss; if the asset is greater than the amount of the debt, the difference is gain.

We determine the value of the debt of \$210 which Cash owes us, in the same way, that is to say, by counting the cash. Since the amount of the debt is the difference between what we have given to the person called Cash and what we have received from him, it should agree with the amount which he has on hand.

Our estimate of the value of the debt of \$100 which Wm. Jones owes us depends upon our opinion of Jones. If we think that he will pay it, we count it as an asset. If we think that he will pay only part of it, we count that part of it as an asset and the rest of it as a loss. If we think that he will not pay anything, we count it all as a loss.

The debt of \$50 which the person called Expense owes us will not be paid, therefore we count it as a loss. .

We will have to pay the debt of \$1,000 which we owe to John Smith, therefore we count it as a liability.

We will not have to pay the debt of \$40 which we owe to the person called Interest, therefore we count it as a gain.

The failure to understand the figurative language of double-entry bookkeeping has given rise to a very wide-spread error in regard to two classes of accounts. The bookkeeper thinks that in accounts like Cash and Merchandise we debit when we receive and credit when we give, and that in accounts

like Interest and Expense we credit when we receive and debit when we give. In other words, he thinks that in the one class of accounts as compared with the other, the rule for debiting and crediting is reversed.

That idea is entirely wrong. In accounts like Cash and Merchandise as compared with accounts like Interest and Expense, there is a reversal, but it is not a reversal in the rule for debiting and crediting; it is simply a reversal in the method of naming the accounts. Accounts like Interest and Expense deal with causes of outgo and income; accounts like Cash and Merchandise deal with things. Now one of the primary instincts of mankind is to resort to personification for the purpose of expressing abstract ideas in concrete form. It is, therefore, a fundamental law of the human mind that it never personifies things, since things are already concrete. It may personify the abstract ideas which it associates with a certain thing, but it does not personify the thing itself.

In accordance with that law, double-entry bookkeeping personifies actions or the causes of actions, but it never personifies things. Interest is the personification of interest; but Cash is not the personification of cash, it is the personification of the act of handling cash. In accounts like Interest and Expense we personify that which acts, and the name which we give to this imaginary person is descriptive of that which acts. In accounts like Cash and Merchandise we personify that which acts, but the name which we give to this imaginary person is descriptive of the thing which is acted upon. The principle which governs in naming the accounts in the one case is the reverse of the principle which governs in the other.

But in bookkeeping there is no reversal of the rule for debiting and crediting. We always credit the person from whom we receive and debit the person to whom we give; there is no exception to that rule. When money is paid in for interest, we receive from Interest and give to Cash. When

we receive the money from Interest, we credit Interest; when we give it to Cash, we debit Cash. When money is paid out for expenses, we receive from Cash and give to Expense. When we receive the money from Cash, we credit Cash; when we give it to Expense, we debit Expense.

CHAPTER VIII

DOUBLE-ENTRY BOOKKEEPING IS DUPLICATE-ENTRY BOOKKEEPING—ACCOUNTS OF ORIGINAL ENTRY AND ACCOUNTS OF DUPLICATE ENTRY—SCHEDULE OF ACCOUNTS—THE ACCOUNTS OF ORIGINAL ENTRY SHOW ACTUAL AND THE ACCOUNTS OF DUPLICATE ENTRY SHOW IMAGINARY SUBDIVISIONS OF THE NET CAPITAL—THE ACCOUNTS OF AN INDIVIDUAL OR OF A FIRM CAN BE KEPT IN THE SAME FORM AS THOSE OF A CORPORATION.

The example given in the preceding chapter contains nothing but transactions, and since a transaction always gives rise to two equal and opposite debts, it is easy to understand why the amount involved in the operation is entered both as a debit and as a credit. In every transaction the proprietor borrows from one party and lends to another, therefore one of the parties is creditor to the proprietor and the other is debtor to the proprietor. But when the proprietor contributes capital he lends to one party without borrowing from another, and when he withdraws capital he borrows from one party without lending to another. In the case of a contribution or a withdrawal there is only one debt, and therefore the question arises, How is it possible to record a single debt so as to keep debits and credits equal? The answer to that question is, By recording the debt in duplicate.

In double-entry bookkeeping we regard the debts as being between the proprietor and the outside parties severally and collectively, and for that reason we record them twice. Every debt which is owed to the proprietor by one of the outside parties is also regarded as being owed to the proprietor by all of the outside parties collectively, and every debt which is owed by the proprietor to one of the outside parties is also regarded as being owed by the proprietor to all of the

outside parties collectively. We have specific accounts between the proprietor and the outside parties severally, and we also have a general account between the proprietor and the outside parties collectively. The former are the accounts of original entry; the latter is the account of duplicate entry.

In every account of original entry one of the outside parties is the first party and the proprietor is the second party. A debit entry means that the outside party owes the proprietor, and a credit entry means that the outside party is owed by the proprietor.

In the account of duplicate entry the proprietor is the first party and the outside parties collectively are the second party. A debit entry means that the proprietor owes the outside parties collectively, and a credit entry means that the proprietor is owed by the outside parties collectively. (The reader will observe that we have here the answer to the question which was raised in Chapter II, namely, Who is the second party in the proprietor's account?)

The fact that in the account of duplicate entry, as compared with the accounts of original entry, the order of the parties is reversed is what keeps debits and credits equal, since every debt which is recorded as a debit in an account of original entry is recorded as a credit in the account of duplicate entry, and every debt which is recorded as a credit in an account of original entry is recorded as a debit in the account of duplicate entry.

Each account of original entry records the relations between the proprietor and one of the outside parties; the account of duplicate entry records the relations between the proprietor and all of the outside parties collectively.

Each account of original entry records the asset or liability existing in the form indicated by the heading of the account; the account of duplicate entry records the net asset or net liability—the net capital.

Each account of original entry records the loss or gain

caused by the heading of the account; the account of duplicate entry records the net loss or net gain.

Theoretically, we do all of the work twice, and the results mutually check each other; practically, we do very little of the work twice, since the great majority of the entries which otherwise would be made in the account of duplicate entry, cancel each other and therefore are omitted.

In double-entry bookkeeping, then, we have specific accounts of original entry and a general account of duplicate entry. But the term *general account*, in the sense in which it is used here, does not necessarily mean one general account as distinguished from various specific accounts; it means a general account between the proprietor and all of the outside parties collectively, as distinguished from a specific account between the proprietor and one of the outside parties. When carried in the form of one account it is the proprietor's account, net capital account; but it may be, and often is carried in the form of various subordinate accounts, which in the aggregate are equivalent to net capital account.

The various classes of accounts which are used in double-entry bookkeeping are shown in the following schedule:

Accounts of Original Entry	{	Personal Accounts	{	Individuals Firms Corporations Personal Acc'ts of Proprietors
		Bills Receivable Bills Payable		
	{	Property Accounts	{	Cash Merchandise Real Estate Etc., Etc.
		Acc'ts Representing Causes of Outgo and Income		Interest Expense Etc., Etc.
Accounts of Duplicate Entry	{	Net Capital Account	{	Partnership Acc'ts Capital Stock Surplus Etc., Etc.

The number of possible accounts is unlimited, since (in addition to the names of individuals, firms and corporations) any word or phrase which expresses the form of an asset or liability or the cause of an outgo or income may be used as the heading of an account of original entry, and any word or phrase which expresses the reason or purpose for which a portion of the net capital is supposed to be set aside or reserved may be used as the heading of an account of duplicate entry. ,

The accounts of original entry are easy to understand. In each of these accounts one of the outside parties is the first party and the proprietor, whether an individual, a firm or a corporation, is the second party. Therefore a debit entry means that the outside party owes the proprietor, a credit entry means that he is owed by the proprietor, and the balance of the account always shows the net debt which he owes to, or is owed by, the proprietor. If the debt is owed to the proprietor, then to the extent to which it is good it represents asset, and to the extent to which it is bad it represents loss. If the debt is owed by the proprietor, then to the extent to which it is good it represents liability, and to the extent to which it is bad it represents gain.

Net capital account is also easy to understand. In this account the proprietor is the first party and the outside parties collectively are the second party. Therefore a debit entry means that the proprietor owes the outside parties collectively, a credit entry means that he is owed by the outside parties collectively, and the balance of the account always shows the net debt which he owes to, or is owed by, the outside parties collectively. If the debt is owed to the proprietor, then to the extent to which it is good it represents net asset, and to the extent to which it is bad it represents net loss. If the debt is owed by the proprietor, then to the extent to which it is good it represents net liability, and to the extent to which it is bad it represents net gain.

But partnership accounts and accounts like Capital Stock

and Surplus are not so easy to understand, because the relation of the proprietor to these accounts is not so evident. In order to understand them one must keep clearly in mind the fact that the heading of every such account is included in the term *proprietor*. In the case of the firm of Smith & Jones, whatever is done by Smith as a member of the firm is done by the firm; whatever is done by Jones as a member of the firm is done by the firm. In like manner, a debit to Smith as a member of the firm is a debit to the firm, a credit to Jones as a member of the firm is a credit to the firm. In the case of a company, a credit to Capital Stock is a credit to the company, a debit to Surplus is a debit to the company.

If the titles were written in full, the accounts would appear in the books of an individual proprietor in this form:

ACCOUNTS OF ORIGINAL ENTRY

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>
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To Proprietor

<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
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To Proprietor

<i>Dr.</i>	<i>Interest</i>	<i>Cr.</i>
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To Proprietor

<i>Dr.</i>	<i>Expense</i> <i>To Proprietor</i>	<i>Cr.</i>
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ACCOUNT OF DUPLICATE ENTRY

<i>Dr.</i>	<i>Proprietor</i> <i>To Outside Parties</i>	<i>Cr.</i>
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In the books of the firm of Smith & Jones the accounts would be in this form:

ACCOUNTS OF ORIGINAL ENTRY

<i>Dr.</i>	<i>Cash</i> <i>To Firm</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Merchandise</i> <i>To Firm</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Interest</i> <i>To Firm</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Expense</i> <i>To Firm</i>	<i>Cr.</i>
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ACCOUNTS OF DUPLICATE ENTRY

<i>Dr.</i>	<i>Firm (John Smith)</i> <i>To Outside Parties</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Firm (Wm. Jones)</i> <i>To Outside Parties</i>	<i>Cr.</i>
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In the books of a corporation the accounts would be in this form:

ACCOUNTS OF ORIGINAL ENTRY

<i>Dr.</i>	<i>Cash</i> <i>To Company</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Merchandise</i> <i>To Company</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Interest To Company</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Expense To Company</i>	<i>Cr.</i>
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ACCOUNTS OF DUPLICATE ENTRY

<i>Dr.</i>	<i>Company (Capital Stock) To Outside Parties</i>	<i>Cr.</i>
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<i>Dr.</i>	<i>Company (Surplus) To Outside Parties</i>	<i>Cr.</i>
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Bearing in mind that the word *firm* means the partners collectively and that the word *company* means the stockholders collectively, the reader will note from the above examples that in double-entry bookkeeping there is no intermediate party; the accounts are between the proprietor, or the proprietors collectively, on the one side, and the outside parties severally and collectively, on the other side. In the case of the firm of Smith & Jones, Smith's proprietorship account means simply that of the total net capital belonging to the partners collectively, a certain portion represents

Smith's interest. In the case of a company, capital stock account means simply that of the total net capital belonging to the stockholders collectively, a certain portion represents what they have contributed.

In practice, the bookkeeper never writes the name of the second party; he heads each of his accounts with the name of the first party only. In practice, then, Smith's proprietorship account is in this form:

<i>Dr.</i>	<i>John Smith (Proprietorship Account)</i>	<i>Cr.</i>
		\$40,000

The bookkeeper thinks that that account means that Smith is owed \$40,000 by the firm, but as a matter of fact it means nothing of the kind; it means that Smith, as a member of the firm, is owed \$40,000 by the outside parties collectively.

In practice, capital stock account is in this form:

<i>Dr.</i>	<i>Capital Stock</i>	<i>Cr.</i>
		\$100,000

That account does not mean that the stockholders are owed \$100,000 by the company; it means that the company (that is to say, the stockholders) is owed \$100,000 by the outside parties collectively.

The above discussion brings out the fact that in double-entry bookkeeping we have, or may have, two separate divisions of the net capital, one shown by the accounts of original entry and the other shown by the accounts of duplicate entry. The net capital regarded as the algebraical sum of the assets and the liabilities, is a concrete quantity, because we can point out the assets and liabilities which compose it (it is composed of all the assets and liabilities). But the net capital

regarded as the arithmetical difference between the assets and the liabilities is an abstract quantity, because we cannot point out the assets (or liabilities) which compose it. After subtracting the total of the liabilities from the total of the assets, we cannot specify any particular assets as remaining; therefore the arithmetical difference between the assets and the liabilities is an abstract quantity.

As stated in Chapter VI, the difference between the concrete and the abstract, as those words are used in connection with numbers, is the difference between the specific and the general. A number which represents a specific good debt, that is to say, a debt between the proprietor and one of the outside parties, is a concrete number; while a number which represents a debt between the proprietor and all of the outside parties collectively is an abstract number. The accounts of original entry, then, show the assets and liabilities, the concrete parts which make up the net capital; in other words, they show how the net capital as a concrete quantity is divided. But the accounts of duplicate entry do not show how the net capital is divided; they show how the net capital as an abstract quantity is supposed to be divided; it is purely an imaginary division. In the case of a firm, we cannot point out certain assets and say that these represent one partner's interest and these represent another partner's interest; in the case of a company we cannot point out certain assets and say that these represent the capital stock and these represent the surplus; there is no such division, except in the books.

In his use of accounts of duplicate entry the bookkeeper always follows a certain routine. In the case of an individual proprietor, he carries net capital account, the proprietor's account; in the case of a firm, he omits the firm's account and carries the proprietorship accounts of the various partners in its place; in the case of a company, he omits the company's account and carries accounts like Capital Stock and

Surplus in its place. Theoretically, however, there is no reason why the accounts of an individual proprietor or of a firm should not be carried in the same form as those of a corporation, if it were thought worth while to do so. The object of the account called Capital Stock is to show the amount of capital contributed by the stockholders. The title Capital Stock, then, is equivalent to the title Contributed Capital, and the titles Contributed Capital, Surplus, etc., apply to the accounts of an individual or of a firm as well as to those of a corporation. Of course, in the case of a firm, if we carried accounts like Contributed Capital and Surplus, we could not carry partnership accounts; but when each partner's interest is fixed at a certain fractional part of the whole, partnership accounts are unnecessary. If the total of the net capital is known, there is no need of carrying accounts in the ledger to show what a half or a third or a quarter of it would be.

CHAPTER IX

EXAMPLES ILLUSTRATING DUPLICATE ENTRY—DIFFERENCE
BETWEEN THE THEORY OF DUPLICATE ENTRY AND THE
COMMON THEORY OF DOUBLE-ENTRY BOOKKEEPING.

When we say that in double-entry bookkeeping every debt is recorded in duplicate, we do not mean that every debt is recorded twice in the same form; we mean that it is recorded in two different forms, once as a debt between the proprietor and one of the outside parties and again as a debt between the proprietor and all of the outside parties collectively. And when we say that every debt is recorded twice, we mean that *theoretically* it is recorded twice. In practice it often happens that two or more duplicate entries which are to be made at the same time either wholly or partially cancel each other, and then to the extent to which they cancel each other they are omitted.

If in practice as well as in theory every debt had to be recorded twice, it would make double-entry bookkeeping a very cumbersome process, but fortunately the great majority of the entries which are made in accounting are made to record transactions and in recording a transaction the duplicate entries always cancel each other, since a transaction always gives rise to two equal and opposite debts. In the case of a sale of merchandise for cash, for example, the proprietor borrows from the person called Merchandise and lends to the person called Cash, therefore Cash owes the proprietor and Merchandise is owed by the proprietor. The entries to record these debts are as follows:

JOURNAL

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor.....(1)	\$100	
Merchandise, to Proprietor.....(2)		\$100

LEDGER

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>
	<i>To Proprietor</i>	

(1)	\$100	
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<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
	<i>To Proprietor</i>	

	(2)	\$100
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Here we are not recording the same debt twice; we are recording two distinct debts. The first entry records the debt which the outside party called Cash owes to the proprietor, and the second entry records the debt which the proprietor owes to the outside party called Merchandise. If we recorded these debts in duplicate we would have to record each of them twice, once as a debt between the proprietor and one of the outside parties and again as a debt between the proprietor and all of the outside parties collectively. The entries, then, would be as follows:

JOURNAL

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor (1)	\$100	
Proprietor, to Outside Parties..... (2)		\$100
Merchandise, to Proprietor..... (3)		100
Proprietor, to Outside Parties..... (4)	100	

LEDGER

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>
	<i>To Proprietor</i>	

(1)	\$100	
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<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
	<i>To Proprietor</i>	

		(3)	\$100
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<i>Dr.</i>	<i>Proprietor</i>	<i>Cr.</i>
	<i>To Outside Parties</i>	

(4)	\$100	(2)	\$100
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Here the debit and credit to the proprietor cancel each other. It follows, then, that in recording a transaction the entries are made in the accounts of original entry only, since the duplicate entries always cancel each other and therefore are omitted.

But while a transaction gives rise to two equal and opposite debts, a contribution or a withdrawal only gives rise to one debt, therefore in practice as well as in theory a contribution or a withdrawal is always recorded in duplicate.

When the proprietor contributes \$1,000 in cash, he lends the amount to the person called Cash; therefore Cash owes the proprietor. This debt is recorded in duplicate as follows:

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	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor.....(1)	\$1,000	
Proprietor, to Outside Parties.....(2)		\$1,000

LEDGER

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Proprietor</i>	<i>Cr.</i>
	<i>To Proprietor</i>			<i>To Outside Parties</i>	
(1)	\$1,000			(2)	\$1,000

The first entry records a debt of \$1,000 as being owed to the proprietor by the outside party called Cash, and the second entry records the same debt as being owed to the proprietor by the outside parties collectively.

To record a contribution, then, we debit one of the outside parties and credit the proprietor, and to record a withdrawal we credit one of the outside parties and debit the proprietor.

To open the books:

An asset at the beginning is recorded in the same way as a contribution, and a liability at the beginning is recorded in the same way as a withdrawal. If at the time of opening the books the proprietor has certain liabilities as well as certain assets, the duplicate entries partially cancel each other and to that extent they are omitted.

As an example to illustrate the method of opening the books we will assume that the proprietor's assets are \$1,000 in cash and \$10,000 worth of merchandise, and that his liabilities amount to \$3,000 in the form of bills payable.

In order to record these assets and liabilities in the figurative language of double-entry bookkeeping, we must pretend that the proprietor lends the amounts of the assets to certain outside parties called Cash and Merchandise, and that he borrows the amount of the liabilities from a certain outside party called Bills Payable. Therefore the asset in the form of cash is expressed as a debt owed to the proprietor by the person called Cash, the asset in the form of merchandise is expressed as a debt owed to the proprietor by the person called Merchandise, and the liability in the form of bills payable is expressed as a debt owed by the proprietor to the person called Bills Payable. We record each of these debts twice, once as a debt between the proprietor and one of the outside parties and again as a debt between the proprietor and all of the outside parties collectively.

The entries are as follows:

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		<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor.....	(1)	\$1,000	
Proprietor, to Outside Parties	(2)		\$1,000
Merchandise, to Proprietor.....	(3)	10,000	
Proprietor, to Outside Parties.....	(4)		10,000
Bills Payable, to Proprietor.....	(5)		3,000
Proprietor, to Outside Parties.....	(6)	3,000	

LEDGER

<i>Dr.</i>	<i>Cash</i> <i>To Proprietor</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Merchandise</i> <i>To Proprietor</i>	<i>Cr.</i>
(1)	\$1,000		(3)	\$10,000	
<i>Dr.</i>	<i>Bills Payable</i> <i>To Proprietor</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Proprietor</i> <i>To Outside Parties</i>	<i>Cr.</i>
		(5) \$3,000	(6) \$3,000	(2) \$1,000	
			Bal. 8,000	(4) 10,000	
			\$11,000		\$11,000
				Bal.	\$8,000

The first entry records a debt of \$1,000 as being owed to the proprietor by the outside party called Cash, and the second entry records the same debt as being owed to the proprietor by all of the outside parties collectively. The third entry records a debt of \$10,000 as being owed to the proprietor by the outside party called Merchandise, and the fourth entry records the same debt as being owed to the proprietor by all of the outside parties collectively. The fifth entry records a debt of \$3,000 as being owed by the proprietor to the outside party called Bills Payable, and the sixth entry records the same debt as being owed by the proprietor to all of the outside parties collectively.

The debits and credits to the proprietor partially cancel each other, and therefore it is unnecessary to enter them

separately. To the extent to which they cancel each other they are omitted; only the excess of the one side over the other is entered.

The entries to open the books, then, are as follows:

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	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor.....(1)	\$1,000	
Merchandise, to Proprietor.....(2)	10,000	
Bills Payable, to Proprietor.....(3)		\$3,000
Proprietor, to Outside Parties.....(4)		8,000

LEDGER

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
	<i>To Proprietor</i>			<i>To Proprietor</i>	
(1)	\$1,000		(2)	\$10,000	

<i>Dr.</i>	<i>Bills Payable</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Proprietor</i>	<i>Cr.</i>
	<i>To Proprietor</i>			<i>To Outside Parties</i>	
		(3) \$3,000			(4) \$8,000

These entries mean that the outside party called Cash owes \$1,000 to the proprietor; that the outside party called Merchandise owes \$10,000 to the proprietor; that the outside party called Bills Payable is owed \$3,000 by the proprietor; and that the proprietor is owed \$8,000 by the outside parties (Cash, Merchandise and Bills Payable) collectively. Now, the net amount which the proprietor is owed by the outside parties collectively is his net capital; therefore the first three entries show the proprietor's assets and liabilities and the last one shows his net capital.

The reader will observe that in these entries there is no intermediate party; the only parties to the accounts are the proprietor on the one side and the outside parties, severally and collectively, on the other side.

The common theory of double-entry bookkeeping makes the "business" the second party in every account; therefore, according to that theory, the entries to open the books would be as follows:

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		<i>Dr.</i>	<i>Cr.</i>
Cash, to Business.....	(1)	\$1,000	
Merchandise, to Business.....	(2)	10,000	
Bills Payable, to Business.....	(3)		\$3,000
Proprietor, to Business.....	(4)		8,000

LEDGER

<i>Dr.</i>	<i>Cash</i> <i>To Business</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Merchandise</i> <i>To Business</i>	<i>Cr.</i>
(1)	\$1,000		(2)	\$10,000	
<i>Dr.</i>	<i>Bills Payable</i> <i>To Business</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Proprietor</i> <i>To Business</i>	<i>Cr.</i>
		(3) \$3,000			(4) \$8,000

These entries mean that the person called Cash owes \$1,000 to the business; that the person called Merchandise owes \$10,000 to the business; that the person called Bills Payable is owed \$3,000 by the business; and that the proprietor is owed \$8,000 by the business. Therefore the first two entries show the assets of the business and the last two show the liabilities of the business, and assets and liabilities are always equal. The reader will observe that in this case the proprietor has nothing to do with any of the accounts except the last one.

In practice the bookkeeper never writes the name of the second party, and therefore he makes the opening entries in this form:

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		<i>Dr.</i>	<i>Cr.</i>
Cash	(1)	\$1,000	
Merchandise	(2)	10,000	
Bills Payable.....	(3)		\$3,000
Proprietor	(4)		8,000

LEDGER

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
(1)	\$1,000		(2)	\$10,000	
<i>Dr.</i>	<i>Bills Payable</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Proprietor</i>	<i>Cr.</i>
	(3)	\$3,000		(4)	\$8,000

To explain the meaning of these entries is the first and the fundamental problem of double-entry bookkeeping. The words *debtor* and *creditor* convey the idea of owing and of being owed, and if a given amount is owed it must be owed to one person by another person. The question therefore is: To whom are owed the amounts entered as debits and by whom are owed the amounts entered as credits? In reply to that question the bookkeeper says that the amounts entered as debits are owed to the business and that the amounts entered as credits are owed by the business. Many modern writers on the subject recognize the absurdity of that answer, but being unable to devise any other answer to the question they declare that the words *debtor* and *creditor*, as used here, have no meaning at all, that they are merely arbitrary signs to distinguish between the left-hand side and the right-hand side. But that does not solve the problem, it simply begs the question; it is equivalent to declaring that the entries themselves mean nothing.

In the case of the problem involved in this question there are only two possible theories, the theory of duplicate entry

developed in our discussion, which is the true theory, and the theory which is commonly taught—a theory which has muddled the brains of bookkeepers ever since double-entry bookkeeping was invented.

According to the theory of duplicate entry the entries given above mean that Cash owes \$1,000 to the proprietor, that Merchandise owes \$10,000 to the proprietor, that Bills Payable is owed \$3,000 by the proprietor, and that the proprietor is owed \$8,000 by the outside parties (Cash, Merchandise and Bills Payable) collectively. In this case the words *asset* and *liability* must be used from the standpoint of the proprietor, since every debt is owed either to the proprietor or by the proprietor.

According to the common theory of double-entry bookkeeping the entries mean that Cash owes \$1,000 to the business, that Merchandise owes \$10,000 to the business, that Bills Payable is owed \$3,000 by the business and that the proprietor is owed \$8,000 by the business. In this case the words *asset* and *liability* must be used from the standpoint of the business, since every debt is owed either to the business or by the business.

From the standpoint of the proprietor assets and liabilities, like losses and gains, are almost invariably unequal. Excess of assets over liabilities is net asset, excess of liabilities over assets is net liability, excess of losses over gains is net loss, excess of gains over losses is net gain.

From the standpoint of the business assets and liabilities, as well as losses and gains, are always equal, and therefore there is no such thing as net asset or net liability or net loss or net gain.

In the one case the relative terms *asset* and *liability* are used from a single standpoint, the standpoint of a party that faces one way. In the other case the relative terms *asset* and *liability* are used from a double standpoint, the standpoint of a party that faces both ways. The difference

between the two theories, then, is simply the difference between a proper and an improper use of relative terms.

In accordance with the theory of duplicate entry the accountant says asset when he means asset, liability when he means liability and net capital when he means net capital. In accordance with the common theory of double-entry bookkeeping the accountant says asset when he means asset, liability when he means liability, liability when he means net asset and asset when he means net liability; and if he were true to his own theory, he would say loss when he means net gain and gain when he means net loss. In the one case the accountant's language is clear and accurate, while in the other case it is confused and unintelligible.

There may be men whose minds are so constituted, or so warped and twisted by false training, that they cannot appreciate the difference between the two theories, but in reality it is a fundamental difference. It is the difference between the right way and the wrong way; it is the difference between clear thinking and muddled thinking; it is the difference between rational speech and irrational speech; it is the difference between straight-eyed bookkeeping and cross-eyed bookkeeping.

When, in accordance with the theory of duplicate entry, a man says that good debts owed to the proprietor by the outside parties severally, represent asset, that good debts owed by the proprietor to the outside parties severally, represent liability, and that the net good debt owed to the proprietor by the outside parties collectively, represents net capital, the clearness of his view is beyond question. But when, in accordance with the common theory of double-entry bookkeeping, a man says that the item of \$3,000 in the above example (an item which represents a liability *of* the proprietor) is to be counted as a liability, and that the item of \$8,000 (an item which represents the net liability *to* the proprietor) is also to be counted as a liability, it is very evident that his

mental vision is out of focus; he is trying to look in two directions at the same time.

We now have the answer to the question which was raised in Chapter II, namely: Who is the second party in the proprietor's account? The answer to that question is: The outside parties collectively. That is a very simple answer to a very simple question, yet simple as the question is, I believe that the reader may search the literature of accounting from beginning to end without finding a correct answer to it. As a matter of fact and of record, that simple question has been a stumbling-block to the whole accounting fraternity for over four hundred years.

Double-entry bookkeeping is supposed to have been invented at a time when the great majority of people believed that the earth is flat, and about at the time when Columbus started on his voyage to prove his theory that the earth is round. Accountants in common with other people have abandoned the idea that the earth is flat; but the universal custom of making statements in a form showing assets and liabilities equal is conclusive evidence that they still cling to the equally absurd idea that double-entry bookkeeping deals with the assets and liabilities of an imaginary intermediate party. Now in all other matters accountants are usually men of very good sense, and one would suppose that they would have intelligence enough to know that when they use the words *asset* and *liability* from the standpoint of a party that faces both ways they wipe out the idea of asset and liability altogether. Assets and liabilities which are necessarily equal are not assets or liabilities at all. To talk about the assets and liabilities of the "business" is nonsense.

CHAPTER X

CLOSING THE BOOKS—EXAMPLES ILLUSTRATING THE PROCESS.

In the preceding chapters we have explained the method of opening the books and of recording contributions, withdrawals and transactions; it remains, therefore, to explain how the books are closed.

The object of closing the books is to see how we would stand if we realized all our assets and settled all our liabilities. In order to record this in the ledger we must pretend that all debts are paid, as far as they ever will be paid. If the books show that a certain party owes us, then, to the extent to which the debt is good, we credit him on the old account, as if he had paid it, and debit him on new account. If an account shows that we owe the other party, then, to the extent to which the debt is good, we debit him on the old account, as if we had paid it, and credit him on new account.

In this connection one should note the difference between ordinary language and bookkeeping language. In ordinary language we speak of paying a debt, thereby conveying the idea that the debt ceases to exist; but the bookkeeping view is that debts never cease to exist, although they may be neutralized by equal and opposite debts. In double-entry bookkeeping every operation which is recorded is a matter of borrowing or lending; there is no such thing as paying a debt. If Smith settles a debt which he owes us, then, in ordinary language we say that he pays the debt; but in bookkeeping language we do not say that he pays the debt, we say that we borrow an equal amount from Smith, and then the debt which we owe him cancels the debt which he owes us. If we settle a debt which we owe Jones, then, in ordinary language we say that we pay the debt; but in bookkeeping language we do

not say that we pay the debt, we say that we lend an equal amount to Jones, and then the debt which he owes us cancels the debt which we owe him.

In bookkeeping language, then, we would state the case as follows: If at the time of closing the books an account shows that the other party owes us, then, to the extent to which the debt is good, we borrow the amount from him on old account and lend it to him on new account. If an account shows that we owe the other party, then, to the extent to which the debt is good, we lend the amount to him on old account and borrow it from him on new account. That is the way in which bookkeeping language expresses the idea that at the time of closing the books all debts are supposed to be paid, as far as they ever will be paid.

The amount entered in such a case is not necessarily the amount of the debt, it is the amount which we think will be paid; therefore, to close the books we must appraise the values of all debts. Now to appraise the values of debts is exactly the same thing in principle as to appraise the value of a stock of merchandise or a piece of real estate; it is a matter of judgment. When we appraise the value of a stock of goods we call it "taking inventory"; but the idea of "inventory" is not confined to merchandise; in its broader sense, to take inventory means to appraise the values of the assets and liabilities existing at a given time. It is in that sense that the expression is used in bookkeeping, and in that sense it applies to every account of original entry and to the principal account of duplicate entry, net capital account; they are all closed by inventory. The subordinate accounts of duplicate entry (partnership accounts and accounts like Capital Stock and Surplus) cannot be closed directly by inventory, since there are no particular assets or liabilities corresponding to these accounts; but the total amount of the net capital is determined by inventory, and this total can be distributed among the various subordinate accounts.

The arithmetical balance of an account is the difference between the two sides; the inventory balance is the appraised value of the asset or liability (or net asset or net liability) remaining. When we say that an account is closed by balance, we mean that it is closed by arithmetical balance; when we say that an account is closed by inventory, we mean that it is closed by inventory balance. The ledger account as a record of debt is closed by balance; as a record of asset and liability it is closed by inventory.

In the expression *inventory balance* the word *balance* has lost its original meaning altogether; it does not mean balance, it means remainder. In merchandise account, for example, the amount which the bookkeeper enters under the head of "balance" is not the balance of the account; it is the balance, or remainder, of the merchandise as determined by inventory. The origin of this confusing use of the word *balance* is evident. To balance an account the total of the smaller side is subtracted from the total of the larger side, and the remainder is the amount which must be added to the smaller side to make the account balance. The fact that he applies the word *balance* to the remainder of an account has led the bookkeeper to apply the same term to any and every remainder. The amount which is carried down to new account is the remainder of the asset or liability, that is to say, it is the asset or liability remaining; this may or may not be the remainder of the account, but whether it is or not, the bookkeeper always calls it the "balance." The "balance," then, does not always balance the account, and if it does not, the difference represents loss or gain (or net loss or net gain).

The reason why the difference must represent loss or gain is evident. The only operations with which double-entry bookkeeping concerns itself are matters of borrowing and lending, and the purpose of the accounts is to record the debts resulting from these operations; and in borrowing and lending

there can be no loss nor gain as long as the debts are good. It follows, therefore, that in this system of accounting the books are kept in such a way that the net debits and net credits of the ledger accounts always show what the assets, liabilities and net capital would be if there were no loss nor gain. If then, in any given case, the amount of the asset or liability (or net asset or net liability) as determined by inventory does not agree with the balance of the account, the difference represents the loss or gain (or net loss or net gain).

To illustrate the method of closing the accounts in double-entry bookkeeping we will assume that at the end of the period interest account is as follows:

<i>Dr.</i>	<i>Interest To Proprietor</i>	<i>Cr.</i>
	\$120	\$90
	80	140
	170	55
	130	115

This account means that the proprietor has paid out \$500 (the total of the debit side) for interest on debts owed by him, and has received \$400 (the total of the credit side) for interest on debts owed to him.

That is the meaning of the account expressed in literal language; but in the figurative language of double-entry bookkeeping the account means, and says, that the proprietor has lent \$500 to the person called Interest and has borrowed \$400 from him. In other words, the account says that the person called Interest owes \$500 to the proprietor and is owed \$400 by the proprietor, which is equivalent to saying that he owes the proprietor \$100. The account shows

the amount of the debt, but the amount which will be paid can be determined only by inventory.

In closing the above account there are many possible cases, some of which are illustrated by the following examples:

Case I. The inventory shows unpaid (but good) accrued interest receivable to the amount of \$70.

The amount of the accrued interest receivable is the amount which the person called Interest will pay on his debt of \$100, and in order to close the account we must pretend that he has paid it; we therefore credit him with the \$70 on old account and debit him on new account. The account then takes this form:

<i>Dr.</i>	<i>Interest To Proprietor</i>	<i>Cr.</i>
	\$120	\$90
	80	140
	170	55
	130	115
	Bal. (Accr'd Int. Rec.) .	70
	Total Credits	\$470
	Excess Debit (Loss)	30
Total Debits	\$500	\$500
Bal. (Accr'd Int. Rec.) .	\$70	

Our discussion now deals only with the old account and the reader will note that we are supposed to have received the item of \$70 which is entered in that account as representing the remainder of the accrued interest receivable. To be sure, we have given it out again on new account, but that does not affect the preceding period.

The argument to prove that the excess debit (\$30) represents loss may be stated in four different forms, as follows:

1. In every account of original entry, that is to say, in every account in which we (the proprietor) are the second party, debits record the amounts which we have given to the person whose name heads the account, and credits record the

amounts which we have received from him. Therefore the above account shows that we have given \$500 to the person called Interest and have received \$470 from him. Since we will receive nothing more on this account we have suffered a loss of \$30.

2. When a person borrows from us he causes outgo and when he lends to us he causes income. Debits to his account, then, indicate that he has caused outgo and credits indicate that he has caused income. Therefore the above account shows that the person called Interest has caused outgo to the amount of \$500 and income to the amount of \$470; he has caused a loss of \$30.

3. At the close of the period the account shows that there would be an asset of \$100, if there were no loss nor gain, and the inventory shows that there is an asset of \$70; therefore the difference (\$30) represents loss.

4. At the close of the period the account shows that the person called Interest owes us \$100. To the extent to which the debt is good (\$70), it represents asset; to the extent to which it is bad (\$30), it represents loss.

This example illustrates the confusing use of the word *balance*. The bookkeeper always applies that term to the amount which is carried down to new account; but as a matter of fact, in this case the balance of the account, before the amount of the accrued interest receivable has been entered, is \$100, and after the amount of the accrued interest receivable has been entered, the balance of the account is \$30. This balance of \$30 is not a part of the account, it is the result of the account; it is not a part of the credit side of the account, it is the excess of the debit side over the credit side. For that reason the bookkeeper always enters it in red ink.

The bookkeeper also enters the inventory balance (\$70) in red ink in the old account, but for a different reason. We have not actually received the \$70, but we pretend that we have received it in order to close the account. We pre-

tend that we borrow the \$70 from the person called Interest, on old account, and lend it to him on new account; therefore the amount is entered as a liability in the old account and as an asset in the new account. Since it is only a pretended liability, it is entered in red in the old account; but it is an actual asset, and therefore it is entered in black in the new account,

Case II. The inventory shows that there is an asset of \$145 in the form of accrued interest receivable.

The account then takes this form:

<i>Dr.</i>	<i>Interest To Proprietor</i>	<i>Cr.</i>
	\$120	\$90
	80	140
	170	55
	130	115
		Bal. (Accr'd Int. Rec.) .. 145
Total Debits	\$500	
Excess Credit (Gain)	45	
	<u>\$545</u>	
		<u>Total Credits</u> \$545
Bal. (Accr'd Int. Rec.) ..	\$145	

In this case the four forms of the argument are as follows:

1. We have given \$500 to the person called Interest and have received \$545 from him, therefore we have made a gain of \$45.

2. The person called Interest has caused outgo to the amount of \$500 and income to the amount of \$545, therefore he has caused a gain of \$45.

3. At the close of the period the account shows that there would be an asset of \$100 if there were no loss nor gain, and the inventory shows that there is an asset of \$145; therefore the difference (\$45) represents gain.

4. At the close of the period the account shows that the person called Interest owes us \$100. To the extent to

which the debt is good (\$145), it represents asset; to the extent to which it is bad (\$45), it represents gain. To say that the person called Interest owes us \$100 is equivalent to saying that he owes us \$145 and we owe him \$45. The debt of \$145 which he owes us is good, it represents asset; the debt of \$45 which we owe him is bad, it represents gain.

Case III. The inventory shows that there is a liability of \$50 in the form of accrued interest payable.

In this case, instead of Interest paying us \$100, we must pay Interest \$50. Therefore, to close the account we debit the person called Interest with the \$50 on old account, as if we had paid it, and credit him on new account; in other words, we lend the \$50 to him on old account and borrow it from him on new account. The account then takes this form:

<i>Dr.</i>	<i>Interest To Proprietor</i>	<i>Cr.</i>
	\$120	\$90
	80	140
	170	55
	130	115
Bal. (Accr'd Int. Pay.) ..	50	
		Total Credits \$400
		Excess Debit (Loss) ... 150
Total Debits	\$550	\$550
		Bal. (Accr'd Int. Pay.) .. \$50

Here the four forms of the argument are as follows:

1. We have given \$550 to the person called Interest and have received \$400 from him, therefore we have suffered a loss of \$150.

2. The person called Interest has caused outgo to the amount of \$550 and income to the amount of \$400, therefore he has caused a loss of \$150.

3. At the end of the period the account shows that there would be an asset of \$100 if there were no loss nor gain, and

the inventory shows that there is a liability of \$50; therefore the difference (\$150) represents loss.

4. At the close of the period the account shows that the person called Interest owes us \$100. To the extent to which the debt is good (\$50), it represents liability; to the extent to which it is bad (\$150), it represents loss. To say that the person called Interest owes us \$100 is equivalent to saying that he owes us \$150 and we owe him \$50. The debt of \$50 which we owe him is good, it represents liability; the debt of \$150 which he owes us is bad, it represents loss.

Case IV. The inventory shows that there is an asset of \$70 in the form of accrued interest receivable and a liability of \$50 in the form of accrued interest payable.

The amount of the asset (\$70) is entered as a credit in the old account and as a debit in the new account, and the amount of the liability (\$50) is entered as a debit in the old account and as a credit in the new account. In other words, we borrow the amount of the asset from the person called Interest, on old account, and lend it to him on new account, and we lend him the amount of the liability, on old account, and borrow it from him on new account. The account then takes this form:

<i>Dr.</i>	<i>Interest</i>	<i>Cr.</i>
	<i>To Proprietor</i>	
	\$120	\$90
	80	140
	170	55
	130	115
Bal. (Accr'd Int. Pay.)...	50	Bal. (Accr'd Int. Rec.) . 70
		Total Credits \$470
		Excess Debit (Loss) ... 80
Total Debits	\$550	\$550
Bal. (Accr'd Int. Rec.) .	\$70	Bal. (Accr'd Int. Pay.)... \$50

In this case the four forms of the argument are as follows:

1. We have given \$550 to the person called Interest and

have received \$470 from him, therefore we have suffered a loss of \$80.

2. The person called Interest has caused outgo to the amount of \$550 and income to the amount of \$470, therefore he has caused a loss of \$80.

3. At the end of the period the account shows that there would be an asset of \$100 if there were no loss nor gain, and the inventory shows that there is a net asset of \$20 (an asset of \$70 and a liability of \$50); therefore the difference (\$80) represents loss.

4. At the end of the period the account shows that Interest owes us \$100. To say that the person called Interest owes us \$100 is equivalent to saying that he owes us \$150 and we owe him \$50. The debt of \$50 which we owe him is good, it represents liability. The debt of \$150 which he owes us, to the extent to which it is good (\$70), represents asset; to the extent to which it is bad (\$80), it represents loss.

Here, again, the reader will observe that the word *balance*, as used in the above example, does not mean the balance of the account. The \$50 is the balance, that is to say, the unpaid remainder, of the accrued interest payable, and the \$70 is the unpaid remainder of the accrued interest receivable.

In practice, the bookkeeper does not use the forms illustrated above. He transfers the balance of the accrued interest receivable to Interest Receivable and the balance of the accrued interest payable to Interest Payable, thus closing Interest without carrying anything down to new account under that heading. In practice, then, he uses three accounts to carry the record pertaining to the subject of interest. But whether to carry the record in one account or in three is merely a question of convenience; it does not involve any principle of double-entry bookkeeping.

As a matter of fact, the method illustrated above is more convenient than the one which is used in practice. When the bookkeeper transfers the balance of the accrued interest

receivable to one account and the balance of the accrued interest payable to another, he makes his work more difficult, because he must keep constantly in mind the items which compose those amounts, in order to be able to make the entries in the proper accounts when any of the items are paid. But when the account is kept in the manner illustrated above, there is no need of carrying the items in mind, since all entries pertaining to the subject of interest are made in the current interest account.

Case V. The inventory shows that there is no asset nor liability.

The account then is in this form:

<i>Dr.</i>	<i>Interest To Proprietor</i>	<i>Cr.</i>
	\$120	\$90
	80	140
	170	55
	130	115
		<hr/>
		Total Credits \$400
		Excess Debit (Loss) ... 100
<hr/>		<hr/>
Total Debits \$500		\$500

In this case the four forms of the argument are as follows:

1. We have given \$500 to the person called Interest and have received \$400 from him, therefore we have suffered a loss of \$100.

2. The person called Interest has caused outgo to the amount of \$500 and income to the amount of \$400, therefore he has caused a loss of \$100.

3. At the close of the period the account shows that there would be an asset of \$100 if there were no loss nor gain, and the inventory shows that there is no asset; therefore the difference (\$100) represents loss.

4. At the close of the period the account shows that the person called Interest owes us \$100. This debt is bad and therefore it represents loss.

In the above discussion we have used interest account as an illustration, but the discussion is general in its nature. It applies to all personal accounts, to Bills Receivable, to Bills Payable, to all property accounts, like Cash, Merchandise and Real Estate, and to all accounts representing causes of outgo and income, like Interest and Expense. Every account of original entry is closed by inventory. If the inventory shows that there is an asset remaining, the amount is entered as a credit in the old account and as a debit in the new account; if the inventory shows that there is a liability remaining, the amount is entered as a debit in the old account and as a credit in the new account. After these entries have been made, an excess debit represents loss, an excess credit represents gain.

The account of duplicate entry, net capital account, is also closed by inventory; but in this account, as compared with the accounts of original entry, the relative position of the proprietor and the outside parties is reversed, and therefore the manner of making the entries is reversed and the meaning of an excess of one side over the other is reversed. If the inventory shows an excess of assets over liabilities, the amount of the net asset is entered as a debit in the old account and as a credit in the new account; if the inventory shows an excess of liabilities over assets, the amount of the net liability is entered as a credit in the old account and as a debit in the new account. After these entries have been made, an excess debit represents the net gain, an excess credit represents the net loss.

When net capital account is omitted and its subdivisions (partnership accounts and accounts like Capital Stock and Surplus) are carried in its place, the only difference is that the net asset or net liability, instead of being entered in one account, is distributed among the various accounts of duplicate entry.

CHAPTER XI

THE OBJECT OF KEEPING ACCOUNTS.

In keeping their accounts (using that expression to mean the continuous process of keeping the books as distinguished from the act of closing them) bookkeepers have very vague ideas as to what they are trying to do. As a matter of fact, they do not even know what they keep accounts for.

Most of the text-book writers evidently think that we keep some accounts to show what the assets and liabilities are, and other accounts to show what the losses and gains are. They think that personal accounts and accounts like Cash, Merchandise and Real Estate are asset-and-liability accounts, and that accounts like Interest and Expense are loss-and-gain accounts; and they think that the loss-and-gain accounts are subdivisions of the proprietor's account.

Now all bookkeepers know that in many cases both an asset or a liability and a loss or a gain are recorded under the same heading, constituting what some of the writers call a "mixed" account. They know, for example, that in the case of a personal account, a balance owed to the proprietor may represent asset, or it may represent loss, or part of it may represent asset and the rest of it represent loss. The personal account, then, which is the very type and pattern of all ledger accounts, is or may be a "mixed" account. Yet in spite of that fact, which in itself is conclusive evidence that their classification is false, the text-books try to divide all accounts into the two kinds, and they give them various names. They call them balance-sheet accounts and profit-and-loss accounts, or they call them primary accounts and secondary accounts, or they call them real accounts and nominal accounts, or they call them true accounts and representative accounts, or they call them

financial accounts and business accounts, or they call them specific accounts and economic accounts. But whatever names they may use, the underlying idea is that we keep some accounts to show what the assets and liabilities are, and other accounts to show what the losses and gains are.

That idea, like the idea of a reversal in the rule for debiting and crediting, is entirely wrong. We do not keep accounts to show what the assets and liabilities are, nor to show what the losses and gains are; we keep accounts to show what the assets, liabilities and net capital would be if there were no gain nor loss. What the assets, liabilities and net capital are, is determined by inventory, and the differences between what they are and what they would be if there were no gain nor loss, represent the gains and losses and the net gain or net loss.

The bookkeeper will readily understand the purpose for which accounts are kept, if he will consider for a moment the fact that his so-called "trial balance," when he enters the net debits on the one side and the net credits on the other side, is simply a statement showing what the assets, liabilities and net capital would be at that time, if there were no loss nor gain. Now the whole object, and the only object, of keeping the books (as distinguished from the act of closing them) is to supply the information which is contained in that statement. Moreover, that is the limit of possibility in the art of accounting, and that fact explains why accounting is not an exact science. Assuming that the entries which were made to open the books are correct, we can keep accounts to show with absolute accuracy what the assets, liabilities and net capital would be at any given time, if there were no loss nor gain. But there is no exact method of determining what the assets, liabilities and net capital are; the only way to determine it at all is by inventory; and that at best is merely an approximation, a matter of judgment and of estimate.

What has given the bookkeeper the idea that he keeps some accounts to show what the assets and liabilities are and other accounts to show what the losses and gains are, is the fact that in some accounts most of the entries record good debts, and in other accounts most of the entries record bad debts. In the books of railroad and industrial corporations, for example, it is customary to have a general class of accounts called "construction accounts," and another general class of accounts called "operating accounts"; and, as a rule, only good debts are entered in construction accounts and only bad debts are entered in operating accounts. In other words, the balance of a construction account is generally regarded as representing an asset, and the balance of an operating account is generally regarded as representing a loss or a gain. In closing such accounts the bookkeeper follows a certain routine and does not consciously go through the process of taking inventory, and that has given him the impression that the accounts themselves show what the assets and liabilities and the losses and gains are, without the necessity of taking inventory.

That idea is wrong. The best that can be done in accounting, and all that can be done, is to keep accounts to show what the assets and liabilities would be if there were no loss nor gain. Knowing in each case what the asset or liability would be if there were no loss nor gain, we are in a position to determine, with reasonable accuracy, what the asset or liability (and therefore the loss or gain) is. But in every case the amount must be determined by inventory, that is to say, by appraising the value of the debt.

When the bookkeeper keeps an account to show the cost of constructing a certain portion of the plant, a building for example, he seems to think that he is keeping an account to show what the building is worth; but, as a matter of fact, he is doing nothing of the kind. He is keeping an account to show what the building would be worth if it represented

the exact equivalent of every dollar that was spent on it; in other words, he is keeping an account to show what the building would be worth if there were no loss nor gain. When at the time of closing the account he estimates the value of the building, no matter whether his estimate be the same as the cost or greater or less than the cost, he is taking inventory; and the difference, if any, between the amount determined by inventory and the balance of the account, represents the gain or loss.

When the bookkeeper makes entries in his expense account he seems to think that he is keeping an account to show the loss caused by expense; but as a matter of fact, he is doing nothing of the kind. He is keeping an account to show what the asset would be if he had on hand the exact equivalent of every dollar recorded; in other words, he is keeping an account to show what the asset under that heading would be if there were no loss nor gain. When at the time of closing the account he decides that there is an asset (prepaid expense), or that there is a liability (unpaid expense), or that there is no asset nor liability, he is taking inventory; and the difference between the amount determined by inventory and the balance of the account, represents the gain or loss.

The object of keeping books is well illustrated by cash account, an account which is familiar to the great majority of people, since almost every person at one time or another keeps track of his own receipts and disbursements of cash. To keep this account a man does not need any technical knowledge of bookkeeping; it is simply a matter of common sense. In one place he records the cash which he has on hand at the beginning and any subsequent receipts, and in another place, or in another column, he records the disbursements. Now when he does that he is not keeping an account to show how much cash he has on hand; he is keeping an account to show how much he ought to have on hand. To speak of a man keeping an account to show how much cash

he has on hand is an absurdity; the only way to determine how much cash he has on hand is to count it, or in other words, to take inventory of it.

When a person keeps account of his cash, he always does so (whether conscious of it or not) with the idea that the entries on the one side represent the receipts for which he has given an equivalent, and the entries on the other side represent the disbursements for which he has received an equivalent. Therefore, if the amount of cash which he has on hand at any given time is greater or less than the balance of the account, it shows (assuming the account to be correct) that he has received some money without giving an equivalent or has parted with some money without receiving an equivalent; in other words, it shows that he has made a gain or has suffered a loss.

The point to be observed is this: When a person keeps track of his own receipts and disbursements of cash, he is not keeping the account to show how much cash he has on hand; he is keeping the account for the purpose of showing how much cash he would have on hand if there were no loss nor gain. Now, what is true of cash account is true of all the other accounts; they are all kept for exactly the same purpose. Every account in the ledger, whether it be a personal account or an account like Cash or Merchandise or an account like Interest or Expense, or whether it be the proprietor's account, is kept for the purpose of showing what the asset or liability (or net asset or net liability) would be if there were no loss nor gain. In every case, what the asset or liability (or net asset or net liability) is, is determined in exactly the same way as in cash account, by inventory. In every case, if the amount determined by inventory agrees with the balance of the account, there is no loss nor gain; but if the two amounts differ, the difference represents the loss or gain (or net loss or net gain).

In the above statement the word *difference* is used in the

algebraical sense. Assuming that an account shows that, if there were no loss nor gain, there would be an asset of \$100, then, if the inventory shows that there is an asset of \$150, the difference (the gain) is \$50; if the inventory shows that there is an asset of \$100, the difference (the loss or gain) is zero; if the inventory shows that there is an asset of \$40, the difference (the loss) is \$60; if the inventory shows that there is no asset nor liability, the difference (the loss) is \$100; if the inventory shows that there is a liability of \$80, the difference (the loss) is \$180.

Assuming that an account shows that if there were no loss nor gain there would be a liability of \$100, then, if the inventory shows that there is a liability of \$150, the difference (the loss) is \$50; if the inventory shows that there is a liability of \$100, the difference (the loss or gain) is zero; if the inventory shows that there is a liability of \$40, the difference (the gain) is \$60; if the inventory shows that there is no asset nor liability, the difference (the gain) is \$100; if the inventory shows that there is an asset of \$80, the difference (the gain) is \$180.

The above line of reasoning applies to every account of original entry. In other words, it applies to all personal accounts, to Bills Receivable and Bills Payable, to all property accounts, like Cash, Merchandise and Real Estate, and to all accounts representing causes of outgo and income, like Interest and Expense. The same line of reasoning also applies to the accounts of duplicate entry (net capital account and its subdivisions), but in this case the wording would differ somewhat, since in place of the terms *asset*, *liability*, *loss* and *gain*, we would use the terms *net asset*, *net liability*, *net loss* and *net gain*.

Assuming, for example, that at the end of the period the proprietor's account (or the aggregate of its subdivisions) shows a net credit of \$30,000, it means that if there were no loss nor gain there would be a net asset of \$30,000. If, now,

the inventory shows that there is a net asset of \$35,000, the difference (the net gain) is \$5,000; if the inventory shows that there is a net asset of \$27,000, the difference (the net loss) is \$3,000.

The bookkeeper, then, should note this fact: If he wishes to understand double-entry bookkeeping, he must get rid of the idea that all accounts are divided into asset-and-liability accounts and loss-and-gain accounts, and that in the one class of accounts as compared with the other the rule for debiting and crediting is reversed. There is no such division and there is no such reversal. When we receive from Interest we credit Interest, when we give to Cash we debit Cash; when we receive from Cash we credit Cash, when we give to Expense we debit Expense. We always credit the person from whom we receive and debit the person to whom we give; there is no exception to that rule. The rule applies to accounts like Cash and Merchandise exactly as it applies to accounts like Interest and Expense.

In double-entry bookkeeping all accounts are divided into two classes, but the line of division is not between accounts which deal with assets and liabilities and accounts which deal with losses and gains; the line of division is between accounts which deal with assets and liabilities and losses and gains and accounts which deal with net asset and net liability and net loss and net gain. The former are the accounts of original entry, the latter are the accounts of duplicate entry; the former are between the proprietor and the outside parties severally, the latter are between the proprietor and the outside parties collectively. In every account of original entry one of the outside parties is the first party and the proprietor is the second party; in every account of duplicate entry the proprietor is the first party and the outside parties collectively are the second party.

CHAPTER XII

SELF-CONTRADICTIONARY DEBTS.

Bookkeeping is in its simplest form when the accounts cover all the financial affairs of the person or persons for whom the books are kept; but that is not often the case. It is never the case when the books are those of a firm or a company, and it is rarely the case when the owner is an individual. A person can, of course, keep one set of books to cover all of his own affairs, but there are not many who do it. A man is not apt to keep formal accounts at all, unless he is engaged in business of some kind; and in that case, even when he is his own bookkeeper, he usually keeps his business affairs separate from his personal affairs. Moreover, as a rule the bookkeeper is not the owner himself, but an employee, and his duties are confined to a certain business; he has nothing to do with any of his employer's affairs outside of that business. He must, therefore, distinguish between those affairs of the owner which pertain to the business whose accounts he is keeping, and those which do not. In other words, he must regard the owner in two distinct lights, as if he were a combination of two persons, one the proprietor of the business and the other an outside party.

This distinction is necessary in bookkeeping, but the law recognizes it only to a limited extent. In the case of an individual owner we distinguish, for the purposes of bookkeeping, between the owner as an outside party and the owner as proprietor, and may record debts between the two parties. But the law does not recognize the distinction and therefore does not recognize the debts.

In the case of a firm we distinguish, for the purposes of bookkeeping, between the partners as proprietors and the partners as outside parties, but the law recognizes the dis-

tion only to this extent: A partner is not responsible for the personal debts of the other partners, but he is responsible for all the debts of the firm. Therefore the law does not recognize debts between a firm and its members.

If Smith, Jones and Brown, for example, are equal partners, and Smith lends \$3,000 to the firm, then, for the purposes of bookkeeping, we say that the firm owes Smith \$3,000, and record the debt in the ledger. But the law does not recognize the debt. The legal view of the matter is that Jones owes Smith \$1,000 and Brown owes Smith \$1,000; the debt of \$1,000 which Smith as proprietor owes to Smith as an outside party is not recognized at all. In other words, when Smith lends money to the firm, the law does not recognize the debt as a debt of the firm; it regards it simply as a personal matter between Smith, Jones and Brown. But for the purposes of bookkeeping we regard it as a debt of the firm. The advantage of doing so is that it enables us to record the whole operation by means of these entries:

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	<i>Dr.</i>	<i>Cr.</i>
Cash, to Firm	\$3,000	
John Smith, to Firm		\$3,000

LEDGER

<i>Dr.</i>	<i>Cash To Firm</i>	<i>Cr.</i>	<i>Dr.</i>	<i>John Smith To Firm</i>	<i>Cr.</i>
	\$3,000				\$3,000

If we took the legal view of the matter, we would have to assume that Smith lends \$1,000 to Jones and \$1,000 to Brown, and then each of the three partners contributes \$1,000. We could record the contributions, but the debts which Jones and Brown owe to Smith could not be recorded

in the books at all, since the books deal only with the affairs of the firm.

In the case of a corporation in which the liability of the stockholders is limited, the legal distinction between the stockholders as proprietors and the stockholders as outside parties closely resembles the distinction which is made in bookkeeping. The debts of a corporation are not personal liabilities of the stockholders, but they are liabilities of the stockholders as proprietors.

But although it is necessary to distinguish clearly between the owner as an outside party and the owner as proprietor, and although for the purposes of bookkeeping we may record debts between the two parties, yet, from the very nature of things, a debt is self-contradictory to the extent to which the same person is on both sides of it. Therefore, a statement which is made for the information of the public should not include such debts, unless they are specifically recognized by the law.

When a dividend is recorded in the books of a company as declared, the item represents a self-contradictory debt, a debt owed by the stockholders as proprietors to the stockholders as outside parties. Each stockholder is on both sides of the debt to exactly the same extent; as proprietor he is debtor to the same extent to which, as an outside party, he is creditor. But in the public statement of a corporation it is proper to show such an item as a liability, because, if the dividend was declared in accordance with the law, the law recognizes the debt.

Individual proprietors and firms are not apt to make public statements at all. The only statements which they make to outside parties are for the purpose of showing their financial responsibility, and in such statements property which they own outside of the business counts the same as capital invested in the business. In the case of individual proprietors and of firms, the bookkeeper's statement of assets,

liabilities and net capital is made solely for the information of the proprietors, and therefore it may contain self-contradictory debts without danger of deceiving anybody, since the proprietors know exactly what they mean.

In double-entry bookkeeping, then, there are four classes of debts in which the proprietor is or may be concerned.

1. Debts between the proprietor and real persons or organizations of real persons.

Such debts are recognized by the law. When owed to the proprietor, they represent asset if good and loss if bad. When owed by the proprietor, they must be considered good as long as the business continues, and therefore they represent liability.

2. Debts between the proprietor and imaginary persons like Cash, Merchandise, Interest and Expense.

Such relations are debts only for the purposes of bookkeeping, but they represent real assets and liabilities if good, and real losses and gains if bad.

3. Debts between the proprietor and the outside parties collectively.

Such relations are debts only for the purposes of bookkeeping, but they represent net asset or net liability if good, and net loss or net gain if bad.

4. Debts which involve the question of a man's personal interest as distinguished from his proprietorship interest.

In general, such relations are debts only for the purposes of bookkeeping, but in some cases and to a certain extent they are recognized by the law. Debts of the fourth class are either wholly or partially self-contradictory. To the extent to which they are self-contradictory and good, they represent self-contradictory assets and liabilities; to the extent to which they are self-contradictory and bad, they represent withdrawals and contributions, since a withdrawal is a self-contradictory loss and a contribution is a self-contradictory gain.

If the owner of the business draws out a certain amount of money with the intention of replacing it, he instructs the bookkeeper to charge it to his personal account, and the bookkeeper regards the item as an asset, although of course he knows that it is a self-contradictory asset. If, later, the owner decides not to replace the money, the debt becomes bad; but it does not represent a loss, it represents a withdrawal.

If the owner puts a certain amount of money into the business temporarily, he instructs the bookkeeper to credit his personal account with it, and the bookkeeper regards the item as a liability, although of course he knows that it is a self-contradictory liability. If, later, the owner decides to leave the money in the business, the debt becomes bad; but it does not represent a gain, it represents a contribution.

If the stockholders of a company decide to distribute a dividend and enter it in the books as declared, the item represents a liability and they have made a withdrawal. If, later, they decide to rescind that action, the debt becomes bad; but it does not represent a gain, it represents a contribution which offsets the previous withdrawal.

If the stockholders decide to make an assessment and enter it in the books as levied, the item represents an asset and they have made a contribution. If, now, some of the stockholders fail to pay the assessment the debt becomes bad to that extent; but it does not represent a loss, it represents an unauthorized withdrawal of a part of the previous contribution.

If three men are equal partners and one of them borrows money from the firm, the debt, if bad, does not represent loss from the standpoint of the firm. From the standpoint of each of the other two partners, it represents loss to the extent of one-third of the amount; but from the standpoint of the firm it represents an unauthorized withdrawal. If such a debt becomes bad it disrupts the firm, and if a stockholder's

debt to a company on account of an assessment becomes bad, it disrupts his relations with the company.

Since it is understood that self-contradictory debts which are bad represent withdrawals or contributions and not losses or gains, and since such debts are of comparatively rare occurrence in bookkeeping, it will simplify the matter to dismiss them from further consideration, and to discuss the theory on the assumption that there are no such debts. In that way we will avoid the necessity of explaining in each particular case, that certain general statements do not apply to self-contradictory debts.

CHAPTER XIII

THE COMPLETE THEORY OF DOUBLE-ENTRY BOOKKEEPING.

The principles upon which double-entry bookkeeping is based have been explained in the preceding chapters and therefore all that remains now is to condense the discussion and present the theory as a whole. In order to cover all possible cases it is necessary to state the theory twice, once on the assumption that the books include all the financial affairs of the owner, and again on the assumption that they do not. In the first case there is, of course, no such thing as contributing or withdrawing capital; the whole operation of bookkeeping consists in opening the books, recording transactions, closing the books and re-opening them. But the second case involves the necessity of making a distinction between the owner as proprietor of the business whose accounts we are keeping and the owner as an outside party; and in this case we have to deal with contributions and withdrawals as well as with transactions.

Case I. The books cover all the financial affairs of the owner.

Opening the books:

To open the books we take an inventory of the owner's assets and liabilities. His liabilities are always in the form of debts, while some of his assets may be in the form of debts and others may be in material form; but if he has any assets in material form, he is supposed to lend them to certain outside parties called Cash, Merchandise, Real Estate, etc., and then all his assets as well as his liabilities are in the form of debts. This conception enables us to record all the assets as debts owed to the owner and all the liabilities as debts owed by the owner—and to record them in duplicate, once as debts between the owner and the outside parties

severally, and again as debts between the owner and the outside parties collectively. To the extent to which the debts between the owner and the outside parties collectively cancel each other the entries are, of course, omitted.

Recording transactions:

In every transaction the owner is supposed to borrow something from one person and to lend it to another; therefore to record a transaction we credit the person from whom he borrows and debit the person to whom he lends. Theoretically, these debts are also recorded in duplicate, but since the duplicate entries always cancel each other, they are omitted.

Closing and re-opening the books:

To close and re-open the books we take another inventory of the assets and liabilities. In the case of each asset the owner is supposed to borrow the amount on old account from the person whose name indicates the form of the asset, and to lend it to him on new account. In the case of each liability the owner is supposed to lend the amount on old account to the person whose name indicates the form of the liability, and to borrow it from him on new account. These debts are also recorded in duplicate, except to the extent to which the duplicate entries cancel each other.

In the old accounts, now, the debit entries in each account of original entry show the amounts which the owner has given to the party whose name heads the account, and the credit entries show the amounts which the owner has received from him. The difference, therefore, represents the loss or gain under that heading, an excess debit representing a loss and an excess credit representing a gain. In the account of duplicate entry the debit entries show the amounts which the owner has received from the outside parties collectively, and the credit entries show the amounts which the owner has given to them. The difference, therefore, represents the net gain or net loss, an excess debit representing the net gain and an excess credit representing the net loss.

To record the losses and gains and the net loss or net gain, we balance all of the accounts.

Case II. The books cover only a portion of the financial affairs of the owner or owners.

This is always the case when there is more than one owner, and is usually the case when the owner is an individual. This case involves the idea of contributing and withdrawing capital, and therefore it is necessary to distinguish clearly between the act of contributing capital and the act of lending it, and between the act of withdrawing capital and the act of borrowing it. When a man contributes money to a firm or a company, he acquires an interest in the business, when he lends money to it he does not; the two operations are entirely distinct.

If Smith lends \$1,000 to a certain company and Jones buys \$1,000 worth of stock in the same company, it is very evident that the company owes Smith \$1,000, and it is equally evident that the company does not owe Jones anything. In the one case, Smith has given the money to the company and has received nothing in return, therefore the company owes him \$1,000; in the other case, Jones has exchanged individual ownership for corporate ownership, therefore there is no debt. When a member of a firm contributes money to the business, he exchanges individual ownership for joint ownership; when an individual proprietor contributes money to the business, he exchanges personal ownership for business ownership, therefore there is no debt. Contributions and withdrawals, then, do not give rise to debt; that is to say, they do not cause the recipient to owe the giver. It is true that when an assessment is recorded in the books of a company as levied or when a dividend is recorded as declared, the item represents a debt; but in all such cases the debt is owed by the giver to the recipient, and therefore does not constitute an exception to the above statement.

Since double-entry bookkeeping can record only debts we

will, in stating the theory, use the terms *borrow* and *lend* in connection with operations which give rise to debt and therefore are recorded, and will use the term *transfer* in connection with operations which do not give rise to debt and therefore are not recorded.

In outline the theory is as follows:

At the beginning of the period the owner contributes the net capital; that is to say, the owner as an outside party transfers to the owner as proprietor the then existing assets and liabilities.

During the period the owner may contribute additional capital and he may withdraw portions of the capital, and he engages in transactions.

At the close of the period the owner withdraws the net capital; that is to say, the owner as proprietor transfers to the owner as an outside party the then existing assets and liabilities.

The difference, now, between what the owner has contributed and what he has withdrawn is the net loss or net gain.

To open the new period the owner again contributes the net capital; that is to say, at the beginning of the new period the owner as an outside party transfers to the owner as proprietor the assets and liabilities which were withdrawn at the end of the preceding period.

The operation of transferring assets and liabilities may be illustrated in this way:

1. The owner as an outside party has an asset, a debt owed to him by John Smith, and this asset is to be transferred to the owner as proprietor.

The owner as an outside party borrows the amount from Smith (thus canceling the debt owed to him by Smith) and transfers it to the owner as proprietor, who in turn lends it to Smith. The operation, then, has this result: At first Smith owed the owner as an outside party, now he owes the

owner as proprietor; the asset has been transferred from the owner as an outside party to the owner as proprietor.

2. The owner as an outside party has a liability, a debt owed by him to Wm. Jones, and this liability is to be transferred to the owner as proprietor.

The owner as proprietor borrows the amount from Jones and transfers it to the owner as an outside party, who in turn lends it to Jones (thus canceling the debt owed by him to Jones). The operation, then, has this result: At first the owner as an outside party owed Jones, now the owner as proprietor owes Jones; the liability has been transferred from the owner as an outside party to the owner as proprietor.

It will be noted that when the owner contributes an asset, the amount is transferred from the owner as an outside party to the owner as proprietor, and that when the owner contributes a liability, the amount is transferred from the owner as proprietor to the owner as an outside party. It follows, therefore, that when the owner contributes the assets and liabilities which compose the net capital at the beginning of the period, he contributes the amounts of the assets and withdraws the amounts of the liabilities, and when he withdraws the assets and liabilities which compose the net capital at the end of the period, he withdraws the amounts of the assets and contributes the amounts of the liabilities.

It will be noted, also, that a system of accounting which records all assets and liabilities in the form of debts is necessarily based upon the idea that the owner as proprietor never keeps anything in his possession; whatever he receives from one person he immediately lends to another, or else he transfers it to the owner as an outside party. Therefore, all his assets as well as his liabilities are in the form of debts; he never has any assets or liabilities in any other form.

The complete theory, then, is as follows:

To open the books:

The assets and liabilities are determined by inventory.

The owner as an outside party transfers to the owner as proprietor the amounts of the assets. This operation does not give rise to debt and therefore is not recorded. The proprietor lends these amounts to the parties whose names indicate the form of the assets. To record these debts in duplicate we credit the proprietor and debit the parties to whom he lends.

The proprietor borrows the amounts of the liabilities from the parties whose names indicate the form of the liabilities. To record these debts in duplicate we debit the proprietor and credit the parties from whom he borrows. The owner as proprietor transfers these amounts to the owner as an outside party. This operation does not give rise to debt and therefore is not recorded.

To the extent to which the debits and credits to the proprietor cancel each other, they are omitted; only the excess of the one over the other is entered.

To record a contribution :

The owner as an outside party transfers to the owner as proprietor the amount of the contribution. This operation does not give rise to debt and therefore is not recorded. The proprietor lends this amount to the party whose name indicates the form of the income. To record this debt in duplicate we credit the proprietor and debit the party to whom he lends.

To record a withdrawal :

The proprietor borrows the amount of the withdrawal from the party whose name indicates the form of the outgo. To record this debt in duplicate we debit the proprietor and credit the party from whom he borrows. The owner as proprietor transfers this amount to the owner as an outside party. This operation does not give rise to debt and therefore is not recorded.

To record a transaction :

The proprietor borrows from one person and lends to

another the amount involved in the transaction. To record the first debt in duplicate we debit the proprietor and credit the party from whom he borrows. To record the second debt in duplicate we credit the proprietor and debit the party to whom he lends. Since, the debit and credit to the proprietor cancel each other, the entries are omitted.

To close the books:

The assets and liabilities are again determined by inventory.

The proprietor borrows the amounts of the assets from the parties whose names indicate the form of the assets. To record these debts in duplicate we debit the proprietor and credit the parties from whom he borrows. The owner as proprietor transfers these amounts to the owner as an outside party. This operation does not give rise to debt and therefore is not recorded.

The owner as an outside party transfers to the owner as proprietor the amounts of the liabilities. This operation does not give rise to debt and therefore is not recorded. The proprietor lends these amounts to the parties whose names indicate the form of the liabilities. To record these debts in duplicate we credit the proprietor and debit the parties to whom he lends.

To the extent to which the debits and credits to the proprietor cancel each other, they are omitted; only the excess of the one over the other is entered.

These entries complete the record of the operations of the closing period. In each account of original entry the debits now show the amounts which the proprietor has given to the party whose name heads the account, and the credits show the amounts which the proprietor has received from him; therefore an excess debit represents loss and an excess credit represents gain. In the account of duplicate entry the debits show the amounts which the proprietor has received from the outside parties collectively, and the credits show the

amounts which he has given to them ; therefore an excess debit represents the net gain, an excess credit represents the net loss.

To record the losses and gains and the net loss or net gain we balance all of the accounts, the amount to balance an excess debit being entered on the credit side and the amount to balance an excess credit being entered on the debit side.

To re-open the books :

The owner contributes the assets and liabilities again and the work proceeds as before.

In our statement of the theory we assume that the owner is an individual ; in the case of a firm or a company, of course, the wording would be somewhat different. In the case of a firm we would say : The partners as outside parties transfer to the firm the amounts of the assets. The firm lends these amounts to the parties whose names indicate the form of the assets. To record these debts in duplicate we credit the firm and debit the other parties. In the case of a company the statement would be in this form : The stockholders as outside parties transfer to the company the amounts of the assets. The company lends these amounts to the parties whose names indicate the form of the assets. To record these debts in duplicate we credit the company and debit the other parties.

The reader will observe that the principle is the same in all three cases. In the case of an individual owner, the owner as an outside party transfers to the owner as proprietor the amounts of the assets. In the case of a firm, the partners as outside parties transfer to the partners as proprietors the amounts of the assets. In the case of a company, the stockholders as outside parties transfer to the stockholders as proprietors the amounts of the assets.

When the proprietor is a firm or a company, the book-keeper omits net capital account and carries partnership accounts or accounts like Capital Stock and Surplus in its

place. In each of these accounts, as shown in Chapter VIII, the firm or the company is the first party. It is to be understood, then, that in the case of a firm or a company, when we speak of debiting or crediting the proprietor, we mean that we debit or credit one or more of the accounts in which the firm or the company is the first party.

According to the theory stated above (and it is the only possible theory of double-entry bookkeeping) all operations which give rise to debt are recorded twice, except to the extent to which the duplicate entries cancel each other; operations which do not give rise to debt are not recorded at all. When the owner contributes money we do not record the actual contribution at all, because it does not give rise to debt; but we pretend that the proprietor lends the money to a person called Cash, and we record the imaginary loan as giving rise to an imaginary debt. In the same way, when we sell merchandise for cash, we do not record the actual transaction with the customer at all, because it does not give rise to debt. In place of it we record imaginary transactions with persons called Cash and Merchandise as giving rise to imaginary debts.

CHAPTER XIV

EXAMPLE ILLUSTRATING THE THEORY.

As an example to illustrate the theory given in the preceding chapter we will take the case of a merchant dealing in flour, since the barrel of flour is a convenient unit in accounting, and will assume that according to inventory the assets consist of \$3,000 in cash and 2,000 barrels of flour, which at cost price (\$5 per barrel) are worth \$10,000, and the liabilities consist of notes outstanding to the amount of \$1,000.

The process of opening the books is as follows:

The owner as an outside party transfers to the owner as proprietor the amount of the assets (\$13,000). This operation does not give rise to debt and therefore is not recorded. The proprietor lends \$3,000 to an outside party called Cash and \$10,000 to an outside party called Merchandise, therefore Cash and Merchandise owe the proprietor. To record these debts in duplicate we make the following entries:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor	\$3,000	
Merchandise, to Proprietor	10,000	
Proprietor, to Outside Parties		\$13,000

The proprietor borrows \$1,000 from an outside party called Bills Payable, therefore Bills Payable is owed by the proprietor. To record this debt in duplicate we make these entries:

	<i>Dr.</i>	<i>Cr.</i>
Bills Payable, to Proprietor		\$1,000
Proprietor, to Outside Parties	\$1,000	

The owner as proprietor transfers to the owner as an outside party the \$1,000 which he borrowed from Bills Pay-

able. This operation does not give rise to debt and therefore is not recorded.

The credit to the proprietor is \$13,000, the debit is \$1,000, the net credit is \$12,000; therefore the entries to open the books take this form:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor	\$3,000	
Merchandise, to Proprietor	10,000	
Bills Payable, to Proprietor		\$1,000
Proprietor, to Outside Parties		12,000

First transaction:

1,000 barrels of flour are sold for cash at \$5.70 per barrel.

The proprietor borrows \$5,700 from the outside party called Merchandise and lends it to the outside party called Cash, therefore Cash owes the proprietor and Merchandise is owed by the proprietor. To record these debts in duplicate we make the following entries:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor	\$5,700	
Proprietor, to Outside Parties		\$5,700
Merchandise, to Proprietor		5,700
Proprietor, to Outside Parties	5,700	

Since the debit and credit to the proprietor cancel each other it is unnecessary to record them, and therefore the entries take this form:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor	\$5,700	
Merchandise, to Proprietor		\$5,700

Second transaction:

The sum of \$300 is paid out for expenses.

The proprietor borrows \$300 from the outside party called Cash and lends it to an outside party called Expense, therefore Expense owes the proprietor and Cash is owed by the

proprietor. To record these debts in duplicate we make the following entries:

	<i>Dr.</i>	<i>Cr.</i>
Expense, to Proprietor	\$300	
Proprietor, to Outside Parties		\$300
Cash, to Proprietor		300
Proprietor, to Outside Parties	300	

Since the debit and credit to the proprietor cancel each other it is unnecessary to record them, and therefore the entries take this form:

	<i>Dr.</i>	<i>Cr.</i>
Expense, to Proprietor	\$300	
Cash, to Proprietor		\$300

Third transaction:

500 barrels of flour are sold for cash at \$5.80 per barrel.

Since this transaction, except as to the amount involved, is the same as the first one, it is unnecessary to repeat the discussion. The entries are as follows:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor	\$2,900	
Merchandise, to Proprietor		\$2,900

Fourth transaction:

A note for \$400 is paid by the proprietor.

The proprietor borrows \$400 from the outside party called Cash and lends it to the outside party called Bills Payable, therefore Bills Payable owes the proprietor and Cash is owed by the proprietor. To record these debts in duplicate we make these entries:

	<i>Dr.</i>	<i>Cr.</i>
Bills Payable, to Proprietor	\$400	
Proprietor, to Outside Parties		\$400
Cash, to Proprietor		400
Proprietor, to Outside Parties	400	

Since the debit and credit to the proprietor cancel each other they are omitted, and the entries take this form:

	<i>Dr.</i>	<i>Cr.</i>
Bills Payable, to Proprietor	\$400	
Cash, to Proprietor		\$400

Withdrawal:

The owner draws out \$200 for personal use.

The proprietor borrows \$200 from the outside party called Cash, therefore Cash is owed by the proprietor. To record this debt in duplicate we make these entries:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor		\$200
Proprietor, to Outside Parties	\$200	

The owner as proprietor transfers the \$200 to the owner as an outside party. This operation does not give rise to debt and therefore is not recorded.

To close the books we take another inventory of the assets and liabilities. To determine the asset in the form of cash we count the cash, and find that it amounts to \$10,700. To determine the asset in the form of merchandise we count the barrels of flour remaining, and find that there are 500 (there were 2,000 barrels on hand at the beginning and 1,500 barrels have been sold). The 500 barrels of flour at cost price (\$5 per barrel) are worth \$2,500. The liability remaining in the form of bills payable is evidently \$600, since there were notes outstanding to the amount of \$1,000 at the beginning and one of them for \$400 has been paid.

The process of closing the books is as follows:

The proprietor borrows \$10,700 from the outside party called Cash and \$2,500 from the outside party called Merchandise, therefore Cash and Merchandise are owed by the proprietor. To record these debts in duplicate we make the following entries:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor		\$10,700
Merchandise, to Proprietor		2,500
Proprietor, to Outside Parties	\$13,200	

The owner as proprietor transfers to the owner as an outside party the \$13,200 which he borrowed from Cash and Merchandise. This operation does not give rise to debt and therefore is not recorded.

The owner as an outside party transfers to the owner as proprietor the amount of the liabilities (\$600). This operation does not give rise to debt and therefore is not recorded. The proprietor lends the \$600 to the outside party called Bills Payable, therefore Bills Payable owes the proprietor.

To record this debt in duplicate we make these entries:

	<i>Dr.</i>	<i>Cr.</i>
Bills Payable, to Proprietor	\$600	
Proprietor, to Outside Parties		\$600

The debit to the proprietor is \$13,200, the credit is \$600, the net debit is \$12,600; therefore the entries to close the books take this form:

	<i>Dr.</i>	<i>Cr.</i>
Proprietor, to Outside Parties	\$12,600	
Bills Payable, to Proprietor	600	
Cash, to Proprietor		\$10,700
Merchandise, to Proprietor		2,500

After all of the above entries have been transferred to the ledger, then, in every account of original entry an excess debit represents loss and an excess credit represents gain; in the account of duplicate entry an excess debit represents the net gain, an excess credit represents the net loss. To record the losses and gains and the net loss or net gain we balance all of the accounts.

To re-open the books:

The books are re-opened in exactly the same way in which they were opened in the first place, and therefore it is unnecessary to repeat the discussion. It is evident that the entries to re-open the books are just the reverse of the entries to close them, since the owner withdraws the net capital at the end of the closing period and then contributes it again to open the new period. The entries, then, to re-open the books are as follows:

	<i>Dr.</i>	<i>Cr.</i>
Cash, to Proprietor	\$10,700	
Merchandise, to Proprietor	2,500	
Bills Payable, to Proprietor		\$600
Proprietor, to Outside Parties		12,600

In order to present the example in compact form, we make the following recapitulation:

Inventory at beginning:

ASSETS		LIABILITIES	
Cash	\$3,000	Bills Payable	\$1,000
Merchandise	10,000	Total	\$1,000
		Bal. (Net Capital)	12,000
Total	\$13,000		\$13,000

First transaction.—1,000 barrels of flour are sold for cash at \$5.70 per barrel.

Second transaction.—The sum of \$300 is paid out for expenses.

Third transaction.—500 barrels of flour are sold for cash at \$5.80 per barrel.

Fourth transaction.—A note for \$400 is paid by the proprietor.

Withdrawal.—The owner draws out \$200 for personal use.

Inventory at close:

ASSETS		LIABILITIES	
Cash	\$10,700	Bills Payable	\$600
Merchandise	2,500	Total	\$600
		Bal. (Net Capital)	12,600
Total	\$13,200		\$13,200

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To open the books	Cash, to Proprietor	(1)	\$3,000	
	Merchandise, to Proprietor.	(2)	10,000	
	Bills Payable, to Proprietor	(3)		\$1,000
	Proprietor, to Outside Parties	(4)		12,000
1st Trans- action	Cash, to Proprietor	(5)	5,700	
	Merchandise, to Proprietor	(6)		5,700
2nd Trans- action	Expense, to Proprietor ...	(7)	300	
	Cash, to Proprietor	(8)		300
3rd Trans- action	Cash, to Proprietor	(9)	2,900	
	Merchandise, to Proprietor	(10)		2,900
4th Trans- action	Bills Payable to Pro- prietor	(11)	400	
	Cash, to Proprietor	(12)		400
Withdrawal	Proprietor, to Outside Parties	(13)	200	
	Cash, to Proprietor	(14)		200
To close the books (Dec. 31)	Proprietor, to Outside Parties	(15)	12,600	
	Bills Payable to Pro- prietor	(16)	600	
	Cash, to Proprietor	(17)		10,700
	Merchandise, to Proprietor	(18)		2,500
To re-open the books (Jan. 1)	Cash, to Proprietor	(19)	\$10,700	
	Merchandise, to Proprietor	(20)	2,500	
	Bills Payable to Pro- prietor	(21)		\$600
	Proprietor, to Outside Parties	(22)		12,600

PRINCIPLES OF

LEDGER

Dr. *Cash* *Cr.*
To Proprietor

Inventory	(1)	\$3,000		(8)	\$300
	(5)	5,700		(12)	400
	(9)	2,900		(14)	200
			Bal. (Invty.)	(17)	10,700
Total Debits		\$11,600	Total Credits		\$11,600
Bal. (Invty.)	(19)	\$10,700			

Dr. *Merchandise* *Cr.*
To Proprietor

Inventory	(2)	\$10,000		(6)	\$5,700
				(10)	2,900
Total Debits		\$10,000	Bal. (Invty.)	(18)	2,500
Excess Credit (Gain) ..		1,100			
		\$11,100	Total Credits		\$11,100
Bal. (Invty.)	(20)	\$2,500			

Dr. *Bills Payable* *Cr.*
To Proprietor

	(11)	\$400	Inventory	(3)	\$1,000
Bal. (Invty.)	(16)	600			
Total Debits		\$1,000	Total Credits		\$1,000
			Bal. (Invty.)	(21)	\$600

Dr. *Expense* *Cr.*
To Proprietor

	(7)	\$300	Excess Debit (Loss)		\$300
Total Debits		\$300			\$300

Dr. *Proprietor* *Cr.*
To Outside Parties

	(13)	\$200	Inventory	(4)	\$12,000
Bal. (Invty.)	(15)	12,600	Total Credits		\$12,000
			Exc. Debit (Net Gain)		800
Total Debits		\$12,800			\$12,800
			Bal. (Invty.)	(22)	\$12,600

The reader will observe that the items representing losses and gains and the net loss or net gain do not appear in the journal. Such an item is not a part of the account, it is the result of the account; it is the excess of the one side over the other after the account has been completed. It is evident, however, that when we enter these amounts in the ledger, the total entered on the one side always equals the total entered on the other side. In any one account the total of the debits may or may not equal the total of the credits; but in the ledger taken as a whole the total of the debits always equals the total of the credits, and therefore in the various accounts the total of the excess debits must equal the total of the excess credits.

From the ledger accounts we derive the following statement showing the results of the first period:

Cash	\$10,700	Bills Payable	\$600
Merchandise	2,500		
		Total Liabilities at	
		Close	\$600
		Bal. (Net Capital at	
		Close)	12,600
			\$13,200
Total Assets at Close	\$13,200		
Bal. (Net Capital at		Net Capital at Begin-	
Close)	\$12,600	ning	\$12,000
Withdrawals	200	Contributions (None).	
		Bal. (Net Gain)	800
	\$12,800		\$12,800
Bal. (Net Gain) .	\$800	Merchandise (Gain) ..	\$1,100
Expense (Loss) ..	\$300		
Total Losses ...	300		
	\$1,100	Total Gains	\$1,100

It will be noted that the middle section of this statement is simply a copy of the proprietor's account. The purpose of that account is to record the net capital at the beginning

and any subsequent contributions or withdrawals. The aggregate of these entries represents the contributed capital at the close, and the difference between that amount and the net capital at the close is the net loss or net gain. This must agree with the aggregate of the losses and gains as shown in the third section of the statement, thereby checking the correctness of the work.

The example given above is a very simple one, so simple that the reader may be inclined to think that the principles which apply to a little example like this are not sufficient to cover the great variety of operations which arise in practice. But as a matter of fact the example is complete. It illustrates how to open the books, how to record contributions, withdrawals and transactions, how to close the books, how to re-open them, and how to make a statement of the results; and that is all that there is to double-entry bookkeeping. So far as the principles of double-entry bookkeeping are concerned, there is nothing in the accounting of a railroad company or of a great industrial corporation which is not covered by this example.

To be sure, the example does not mention the subject of depreciation, nor does it discuss the question whether, at the time of closing the books, merchandise should be valued at its cost price or at its present market price, nor does it say anything about the question which the accountant so frequently raises, as to whether a certain outlay should be considered as a charge to construction or to operation. But all such matters are covered by the statement that the books are closed by inventory; and to take inventory means to appraise the values of the assets and liabilities.

To a very great extent accounting necessarily deals with estimated values. There are no absolute values in bookkeeping, except the value of the cash on hand and the amount of the legal liabilities; all other values are estimated. Even

the value of cash, as measured by what it will buy, varies; but as expressed in terms of money it cannot vary, and in bookkeeping all values are expressed in terms of money.

In estimating values there is always room for difference of opinion. In the case of a personal account owed to the proprietor, one man might consider it good and another might think that it was bad. After eliminating all the debts which are known to be bad, one man might think that the others should be taken at their face value, another might think that three per cent should be deducted for possible failures to collect, and another might think that five per cent should be deducted. In the case of a manufacturing plant which has been in use for some time, one man might think that it is still worth what it cost, while another might think that an allowance should be made for depreciation. In the case of a certain outlay, one man might think that it should be regarded as an investment, and another might think that it should be regarded as an expense.

All such matters are questions of accounting in general, but they are not questions of double-entry bookkeeping in particular; that is to say, they do not involve any principle of double-entry bookkeeping as distinguished from single-entry bookkeeping. They are matters of opinion and of judgment, and therefore they must be settled by authority—either by the authority of the proprietor of the business or by the authority of the law.

CHAPTER XV

THE BALANCE SHEET.

Frequent closing of the ledger is inconvenient and unnecessary. All the information which is brought out by that operation can be obtained just as well by doing the work on a separate sheet (called the "balance sheet") leaving the ledger accounts open. It is only when, for some reason, it is considered desirable to make a permanent record in the ledger of the state of affairs at a certain date, that it is worth while to close the accounts.

To illustrate the construction of the balance sheet, we will repeat the ledger accounts of the example given in the preceding chapter, omitting the closing entries and transferring the totals of the debits and credits to the statement which is known as the "trial balance."

LEDGER ACCOUNTS.

<i>Cash</i>				<i>Merchandise</i>			
<i>Dr.</i>	<i>To Proprietor</i>		<i>Cr.</i>	<i>Dr.</i>	<i>To Proprietor</i>		<i>Cr.</i>
(1) \$3,000		(8) \$300		(2) \$10,000		(6) \$5,700	
(5) 5,700		(12) 400				(10) 2,900	
(9) 2,900		(14) 200					
<i>Bills Payable</i>				<i>Expense</i>			
<i>Dr.</i>	<i>To Proprietor</i>		<i>Cr.</i>	<i>Dr.</i>	<i>To Proprietor</i>		<i>Cr.</i>
(11) \$400		(3) \$1,000		(7) \$300			
<i>Proprietor</i>							
<i>Dr.</i>	<i>To Outside Parties</i>		<i>Cr.</i>				
(13) \$200		(4) \$12,000					

TRIAL BALANCE

	LEDGER ACCOUNTS			
	Total Debits	Total Credits	Net Debits	Net Credits
Cash.....	\$11,600	\$900	\$10,700	....
Merchandise.....	10,000	8,600	1,400	....
Bills Payable.....	400	1,000	....	\$600
Expense.....	300	....	300	....
Proprietor.....	200	12,000	....	11,800
TOTALS.....	\$22,500	\$22,500	\$12,400	\$12,400

If the totals of the debits and credits balance, then, of course, the totals of the net debits and net credits must balance, since in each case the net debit or net credit is obtained by subtracting the same amount from both sides. The fact that the totals of the debits and credits balance is not positive proof that the ledger is correct, but it is what a lawyer would call *prima facie* evidence to that effect; in the absence of any evidence to the contrary, it indicates that the ledger is correct. If the totals of the debits and credits do not balance, it is positive proof that something is wrong.

The balance sheet given below contains six columns, two showing the net debits and net credits of the ledger accounts at the time of making the statement, two showing the assets, liabilities and net capital as determined by inventory at that time, and two showing the excess debits and excess credits obtained by combining the preceding columns.

In this country, and in most other countries, the bookkeeper's statement of assets and liabilities (which is simply the inventory) shows the amounts of the assets on the debit side and the amounts of the liabilities on the credit side; but in England it is customary to make the statement the other way. Now at the close of the period the amounts of the assets are entered as credits and the amounts of the liabilities are entered as debits; but at the beginning of the new period

the amounts of the assets are entered as debits and the amounts of the liabilities are entered as credits. The English method, then, shows the entries as made at the end of the closing period, while the other method shows them as made at the beginning of the new period. On the balance sheet the inventory is given according to the English method, and necessarily so, because, if we are to determine the losses and gains of the closing period, we must take the entries as made at the end of that period.

It will be noted that in the balance-sheet form the headings in parentheses apply only to the accounts of original entry; they must, of course, be reversed when applied to the account of duplicate entry, since in that account as compared with the others the relative position of the proprietor and the outside parties is reversed.

BALANCE SHEET

	LEDGER ACCOUNTS		INVENTORY		Excess Debits (Losses)	Excess Credits (Gains)
	Net Debits	Net Credits	Debits (Li- abilities)	Credits (Assets)		
	I	II	III	IV	V	VI
Cash.....	\$10,700	....	....	\$10,700	....	....
Merchandise.....	1,400	....	....	2,500	....	\$1,100
Bills Payable....	....	\$600	\$600	....	....	....
Expense.....	300	....	....	....	\$300	....
Proprietor.....	....	11,800	Net Asset 12,600	....	Net Gain 800	....
TOTALS....	\$12,400	\$12,400	\$13,200	\$13,200	\$1,100	\$1,100

The process illustrated by this example is applicable to any set of books, no matter how extensive they may be. Every account in the books of a railroad company, for instance, can be shown on the balance sheet; but in practice

the items would be condensed under general headings in order to keep the size of the balance sheet within reasonable limits. We can, of course, close the ledger and then make the balance sheet, or we can make the balance sheet and then close the ledger, or we can make the balance sheet without closing the ledger, that is to say, we can close the accounts on the balance sheet and leave them open in the ledger.

The above balance sheet is exactly in accordance with the method of closing the books prescribed by the theory and illustrated by the example given in Chapter XIV.

In cash account the amount of the asset as determined by inventory is \$10,700. This amount is entered as a credit to close the old account and as a debit to open the new account. Since the balance sheet deals only with the old accounts, the \$10,700 is entered as a credit in Column IV. The debit in Column I is also \$10,700, therefore the account shows no excess debit or credit.

In merchandise account the amount of the asset as determined by inventory is \$2,500. This amount is entered as a credit to close the old account and as a debit to open the new account, therefore it is entered as a credit in Column IV. The debit in Column I is \$1,400, therefore the account shows an excess credit of \$1,100, which represents gain due to dealing in merchandise.

In bills payable account the amount of the liability as determined by inventory is \$600. This amount is entered as a debit to close the old account and as a credit to open the new account, therefore it is entered as a debit in Column III. The credit in Column II is also \$600, therefore the account shows no excess debit or credit.

In expense account the amount of the asset as determined by inventory is zero. This amount would be entered as a credit to close the old account and as a debit to open the new account, but since the amount is zero it is unnecessary to enter it. The debit in Column I is \$300, therefore the account

shows an excess debit of \$300, which represents loss due to expense.

In the proprietor's account the amount of the net asset as determined by inventory is \$12,600. This amount is entered as a debit to close the old account and as a credit to open the new account, therefore it is entered as a debit in Column III. Since the credit in Column II is \$11,800, the account shows an excess debit of \$800, which represents the net gain.

The check on the correctness of the work lies in the fact that when the \$800 is entered in Column V, Columns V and VI balance.

The form of balance sheet illustrated above (and it is the only correct form) is so simple that one would naturally suppose that it would occur to every person who is at all familiar with the art of accounting; it is nothing more than a tabulation of the entries which every bookkeeper makes when he closes his books. But in order that the reader may have some idea as to how little intelligence is used in bookkeeping, I will say that I have read a number of treatises on the subject and have had occasion to observe the work of a number of bookkeepers, yet I have never seen a text-book that gave, nor have I ever met a bookkeeper who knew how to make, a proper form of balance sheet. What the bookkeeper commonly calls his "balance sheet" is simply the inventory given in Columns III and IV of our example. As to the relations between those figures and the net debits and net credits of his ledger accounts, apparently he has not the remotest conception.

The balance sheet gives all the information which is usually regarded as essential in bookkeeping; but if it were thought worth while, a similar statement could be made showing the relation between the inventory at the beginning and

the inventory at the close of the period. The process is based upon the fact that at the beginning the amounts of the assets are entered as debits and the amounts of the liabilities and the net asset are entered as credits, while at the close of the period the amounts of the assets are entered as credits and the amounts of the liabilities and the net asset are entered as debits. In our example, then, the statement would be as follows:

	INVENTORY AT BEGINNING		INVENTORY AT CLOSE		Excess Debits (Outgo)	Excess Credits (Income)
	Debits (Assets)	Credits (Liabilities)	Debits (Liabilities)	Credits (Assets)		
Cash	\$3,000	....	....	\$10,700	....	\$7,700
Merchandise	10,000	....	....	2,500	\$7,500	....
Bills Payable....	....	\$1,000	\$600	....	....	400
Proprietor .....	....	Net Asset 12,000	Net Asset 12,600	....	Net Income 600	....
TOTALS....	\$13,000	\$13,000	\$13,200	\$13,200	\$8,100	\$8,100

This statement means that during the period there was an increase of asset in the form of cash to the amount of \$7,700, a decrease of asset in the form of merchandise to the amount of \$7,500, an increase of asset (decrease of liability) in the form of bills payable to the amount of \$400, and a net increase of asset to the amount of \$600. During the period the owner drew out \$200 for personal use; if he had not withdrawn anything the net increase of asset would have been \$800, the amount of the net gain.

In algebraical form, the relations between the inventory at the beginning and the inventory at the close of the period are shown in the following statement:

	A Inventory at Close	B Inventory at Beginning	C Differences (Income and Outgo)
Cash	\$10,700	\$3,000	\$7,700
Merchandise	2,500	10,000	—7,500
Bills Payable	—600	—1,000	400
TOTALS	Net Asset \$12,600	Net Asset \$12,000	Net Income \$600

In this statement assets are positive and liabilities are negative, and in each case the item in Column C is obtained by subtracting the item in Column B from the corresponding item in Column A. When the difference is positive it represents income and when negative it represents outgo.

The statement in algebraical form corresponding to the balance sheet is as follows:

	A Inventory at Close	B' Net Debits and Net Credits at Close	C' Differences (Gains and Losses)
Cash	\$10,700	\$10,700	.....
Merchandise	2,500	1,400	\$1,100
Bills Payable	—600	—600	.....
Expense .....	.....	300	—300
TOTALS	Net Asset \$12,600	Net Debit \$11,800	Net Gain \$800

In this case assets and net debits are positive and liabilities and net credits are negative. When the result obtained by subtracting an item in Column B' from the corresponding item in Column A is positive it represents gain, and when negative it represents loss.

The total of Column B' (\$11,800) is the net debit of the accounts of original entry, and therefore it is the net credit of the account of duplicate entry, since in that account, as compared with the others, the relative position of the proprietor and the outside parties is reversed.

Comparing the last two statements the reader will observe that the difference between the totals of Columns C and C' must always be the same as the difference between the totals of Columns B and B', since Column A is the same in both statements. Now, the total of Column B shows what the net capital was at the beginning, and the total of Column B' shows what the net capital would be at the close if there were no loss nor gain, that is to say, it shows what the net capital would be if there were no changes in it except those due to contributions and withdrawals. The totals of Columns B and B', then, always differ by the net amount contributed or withdrawn during the period and therefore the totals of Columns C and C' always differ by that amount. In other words, the net income or outgo and the net gain or loss always differ by the net amount contributed or withdrawn.

CHAPTER XVI

RULES FOR KEEPING BOOKS BY THE DOUBLE-ENTRY METHOD.

The theory given in Chapter XIII covers the whole field of double-entry bookkeeping. Guided by the theory alone the accountant could record every case which can possibly arise in practice, and record it correctly. But there is this difficulty: To use the theory as a guide one must imagine himself as engaged in transactions with fictitious persons, and the bookkeeper's work is of so prosaic a nature that it tends to repress rather than to stimulate the exercise of the imagination. So far as the routine task of keeping books is concerned, the important thing is to know, or to be able to determine quickly, how to make the entries in any given case, without stopping to reason it out. Therefore for practical purposes it is convenient to have a set of rules embodying that part of the theory which answers the question "how," but leaving out the imaginative part, the part which answers the question "why." In order to devise such a set of rules all that is needed is to follow the line of reasoning developed in the theory.

To open the books:

The assets and liabilities are determined by inventory. According to the theory, the owner as an outside party transfers to the owner as proprietor the amounts of the assets, and the proprietor lends these amounts to the parties whose names indicate the form of the assets. The owner as proprietor borrows the amounts of the liabilities from the parties whose names indicate the form of the liabilities, and transfers these amounts to the owner as an outside party. All of the debts resulting from these operations are recorded in duplicate, but to the extent to which the duplicate entries cancel each other they are omitted.

Leaving out the imaginative part of it, the above statement means simply that to open the books we debit the amounts of the assets to the parties whose names indicate the form of the assets, credit the amounts of the liabilities to the parties whose names indicate the form of the liabilities, and credit the proprietor with the excess of assets over liabilities or debit him with the excess of liabilities over assets.

The next stage of the process is to record in the order of their occurrence the various financial operations in which the proprietor of the business takes part, and these operations consist of contributions, withdrawals and transactions.

To record a contribution:

According to the theory, the owner as an outside party transfers to the owner as proprietor the amount of the contribution and the proprietor lends it to the party whose name indicates the form of the income, the debt resulting from the operation being recorded in duplicate. Therefore, to record a contribution we debit the party whose name indicates the form of the income and credit the proprietor.

To record a withdrawal:

According to the theory, the owner as proprietor borrows the amount of the withdrawal from the party whose name indicates the form of the outgo and transfers it to the owner as an outside party, the debt resulting from the operation being recorded in duplicate. Therefore, to record a withdrawal we credit the party whose name indicates the form of the outgo and debit the proprietor.

To record a transaction:

In the case of a transaction we are supposed, according to the theory, to borrow the amount from A and to lend it to B. In other words, A is supposed to lend the amount to us and B is supposed to borrow it from us. When a person lends to us he causes income, and the debt which we owe him (assuming it to be good) represents the corresponding

outgo. When a person borrows from us he causes outgo, and the debt which he owes us (assuming it to be good) represents the corresponding income. On the assumption, then, that all debts are good at the time when they are contracted, a debit to an outside party represents income in the form indicated by the heading of the account and outgo caused by the heading of the account, and a credit represents outgo in the form indicated by the heading of the account and income caused by the heading of the account. Each entry has two meanings, the one concrete and the other abstract.

As long as the debts are good there can be no loss nor gain in borrowing and lending, and in double-entry bookkeeping a transaction is simply a matter of borrowing something from one party and lending it to another. It follows, therefore, that transactions must be recorded on the assumption that there is no loss nor gain, that outgo and income are equal in every case. In every transaction, then, we are supposed to give and to receive the same amount, and the two actions may be regarded as mutually causing each other; we give because we receive and we receive because we give; the income causes the outgo and the outgo causes the income; the entry which records the form of the income also records the cause of the outgo, and the entry which records the form of the outgo also records the cause of the income.

But although every entry has a double meaning, the two meanings are not always equally evident. When we record a disbursement of money for expenses by crediting Cash and debiting Expense, it is very evident that we credit Cash to show the form of the outgo and debit Expense to show the cause of the outgo. It is equally true, but not so evident, that we debit Expense to show the form of the income and credit Cash to show the cause of the income.

At first thought one might question the statement that a debit to Expense means income, increase of asset; but the very form of the account gives it that meaning.

Cash account is in this form:

<i>Dr.</i>	<i>Cash</i> <i>To Proprietor</i>	<i>Cr.</i>

Expense account is in this form:

<i>Dr.</i>	<i>Expense</i> <i>To Proprietor</i>	<i>Cr.</i>

A debit to Cash means increase of debt owed to the proprietor by Cash; a debit to Expense means increase of debt owed to the proprietor by Expense. If one of these entries means increase of asset, the other does also; if all debts are good, a debit to Expense is just as good an asset as a debit to Cash. The point to be observed is this: We make the entries on the assumption that all debts are good; but when we come to close the accounts we drop that assumption and appraise the values of the debts.

To record a transaction, then, we debit the party whose name indicates the form of the income and the cause of the outgo, and credit the party whose name indicates the form of the outgo and the cause of the income. But since the two meanings are not always equally evident, the bookkeeper will be guided by the one which is the more evident in each particular case, and therefore for practical purposes it is more convenient to put the statement in this form: To record a transaction we debit the party whose name indicates the form of the income or the cause of the outgo, and credit the

party whose name indicates the form of the outgo or the cause of the income.

To close the books:

The assets and liabilities are again determined by inventory. According to the theory, the owner as proprietor borrows the amounts of the assets from the parties whose names indicate the form of the assets, and transfers them to the owner as an outside party. The owner as an outside party transfers to the owner as proprietor the amounts of the liabilities and the proprietor lends them to the parties whose names indicate the form of the liabilities. All of the debts resulting from these operations are recorded in duplicate, but to the extent to which the duplicate entries cancel each other they are omitted.

Leaving out the imaginative part of it, the above statement means that to close the books we credit the amounts of the assets to the parties whose names indicate the form of the assets, debit the amounts of the liabilities to the parties whose names indicate the form of the liabilities, and debit the proprietor with the excess of assets over liabilities or credit him with the excess of liabilities over assets.

After these entries have been made, then, in every account of original entry the debits show the amounts which we have given to the party whose name heads the account and the credits show the amounts which we have received from him; therefore an excess debit represents a loss and an excess credit represents a gain. In the account of duplicate entry the debits show the amounts which we have received from the outside parties collectively, and the credits show the amounts which we have given to them; therefore an excess debit represents the net gain, an excess credit represents the net loss. To record the losses and gains and the net loss or net gain we balance all of the accounts.

The books are now re-opened in the same way in which

they were opened in the first place, and therefore it is unnecessary to repeat the discussion.

In accordance with the ideas developed above, the rules for keeping books by the double-entry method are as follows:

To open the books:

Take an inventory of the assets and liabilities.

Debit the amounts of the assets to the parties whose names indicate the form of the assets and credit the amounts of the liabilities to the parties whose names indicate the form of the liabilities.

Credit the proprietor with the excess of assets over liabilities or debit him with the excess of liabilities over assets.

To record a contribution:

Debit the party whose name indicates the form of the income and credit the proprietor.

To record a withdrawal:

Credit the party whose name indicates the form of the outgo and debit the proprietor.

To record a transaction:

Debit the party whose name indicates the form of the income or the cause of the outgo and credit the party whose name indicates the form of the outgo or the cause of the income.

To close the books:

Take another inventory of the assets and liabilities.

Credit the amounts of the assets to the parties whose names indicate the form of the assets and debit the amounts of the liabilities to the parties whose names indicate the form of the liabilities.

Debit the proprietor with the excess of assets over liabilities or credit him with the excess of liabilities over assets.

After these entries have been made, then, in every account of original entry an excess debit represents a loss, an excess

credit represents a gain; in the account of duplicate entry an excess debit represents the net gain, an excess credit represents the net loss. To record the losses and gains and the net loss or net gain, balance all of the accounts.

The check on the correctness of the work lies in the fact that the net loss or net gain as determined by the account of duplicate entry, must agree with the aggregate of the losses and gains as determined by the accounts of original entry.

The rule for opening the books is now applied again and the work proceeds as before.

In stating the rules we assume that the proprietor is an individual. In the case of a firm or a company, when we speak of debiting or crediting the proprietor we mean that we debit or credit one or more of the accounts in which the proprietor, that is to say, the firm or the company, is the first party (partnership accounts and accounts like Capital Stock and Surplus).

The above rules are exactly in accordance with the theory given in Chapter XIII; and if the reader will turn to the example given in Chapter XIV, he will find that the entries are made exactly in accordance with the rules.

But in practice the bookkeeper does not close the books according to the method prescribed by the theory; he always closes the accounts of duplicate entry backwards. To explain what we mean by that statement, we will repeat the proprietor's account in the example given in Chapter XIV, which is as follows:

<i>Dr.</i>		<i>Proprietor</i>	<i>Cr.</i>
		<i>To Outside Parties</i>	
Bal. (Invty.)	(13) \$200	Inventory	(4) \$12,000
	(15) 12,600	Excess Debit (Net Gain)	800
	\$12,800		\$12,800
		Bal. (Invty.)	(22) \$12,600

According to the theory, and according to the rules given above, the amount of the net asset as determined by inventory at the close of the period (\$12,600) is entered in the old account, and then the excess debit (\$800) represents the net gain. In other words, the amount of the net asset (\$12,600) is entered first, and then the amount of the net gain (\$800) is determined by difference; and this must agree with the net gain as determined by the accounts of original entry (a gain of \$1,100 in merchandise account and a loss of \$300 in expense account).

But it is evident that we can arrive at the same result by doing the work backwards; that is to say, the amount of the net gain as determined by the accounts of original entry (\$800) can be entered first, and then the amount of the net asset (\$12,600) is determined by difference, and this must agree with the amount of the net asset as determined by inventory. In practice, that is the way in which the bookkeeper always does it, and to facilitate the operation he makes his statement of losses and gains in the ledger, usually under the heading "Profit and Loss." To adapt the rules to the methods which are used in practice, all that is needed is to change the rule for closing the books so as to make it read as follows:

To close and re-open the books:

Take another inventory of the assets and liabilities. Enter the amounts of the assets as credits to the parties whose names indicate the form of the assets, and carry them down to new account as debits; enter the amounts of the liabilities as debits to the parties whose names indicate the form of the liabilities, and carry them down to new account as credits. Then, in every account of original entry an excess debit represents a loss, an excess credit represents a gain. Transfer the losses and gains to Profit and Loss, transfer the net loss or net gain to the accounts of duplicate entry, close these

accounts by balance and carry the balances down to new account.

In this case, the check on the correctness of the work lies in the fact that after all of the accounts have been closed the total of the balances brought down as debits must agree with the total of the balances brought down as credits.

CHAPTER XVII

EXAMPLE ILLUSTRATING THE RULES—PROFIT AND LOSS.

To illustrate the methods which are used in practice we will repeat the example given in Chapter XIV, but will assume that the proprietor, instead of being an individual, is the firm of Smith & Jones, who are equal partners and contribute equal amounts at the beginning.

STATEMENT OF THE EXAMPLE.

Inventory at the beginning:

ASSETS		LIABILITIES	
Cash	\$3,000	Bills Payable	\$1,000
Mdse. (2,000 barrels of flour @ \$5.00)	10,000	Total	\$1,000
		Bal. (Net Capital)	12,000
Total	\$13,000		\$13,000

Transactions:

1st. They sell 1,000 barrels of flour @ \$5.70	\$5,700
2nd. They pay out \$300 for expenses	300
3rd. They sell 500 barrels of flour @ \$5.80	2,900
4th. They pay one of their notes	400
Withdrawal:	
Smith draws out \$200 for personal use	200

Inventory at close:

ASSETS		LIABILITIES	
Cash	\$10,700	Bills Payable	\$600
Mdse. (500 barrels of flour @ \$5.00)	2,500	Total	\$600
		Bal. (Net Capital)	12,600
Total	\$13,200		\$13,200

The entries given below simply follow the rules stated in the preceding chapter and therefore need no further explanation.

JOURNAL

			Dr.	Cr.
To open the books	Cash, to Firm	(1)	\$3,000	
	Merchandise, to Firm	(2)	10,000	
	Bills Payable, to Firm	(3)		\$1,000
	Firm (John Smith), to Out- side Parties	(4)		6,000
	Firm (Wm. Jones), to Out- side Parties	(5)		6,000
1st Trans- action	Cash, to Firm	(6)	5,700	
	Merchandise, to Firm	(7)		5,700
2nd Trans- action	Expense, to Firm	(8)	300	
	Cash, to Firm	(9)		300
3rd Trans- action	Cash, to Firm	(10)	2,900	
	Merchandise, to Firm	(11)		2,900
4th Trans- action	Bills Payable, to Firm	(12)	400	
	Cash, to Firm	(13)		400
Withdrawal	Firm (John Smith), to Out- side Parties	(14)	200	
	Cash, to Firm	(15)		200
To close and re-open the books	Cash (New Account), to Firm	(16)	10,700	
	Cash (Old Account), to Firm	(17)		10,700
	Mdse. (New Account), to Firm	(18)	2,500	
	Mdse. (Old Account), to Firm	(19)		2,500
	Transfer of gain to Profit and Loss			
	Merchandise	(20)	1,100	
	Profit and Loss	(21)		1,100
	Bills Payable (Old Ac- count), to Firm	(22)	600	
	Bills Payable (New Ac- count), to Firm	(23)		600
	Transfer of loss to Profit and Loss			
	Profit and Loss	(24)	300	
	Expense	(25)		300
	Transfer of net gain to partners' accounts			
	Profit and Loss	(26)	800	
	Firm (John Smith)	(27)		400
	Firm (Wm. Jones)	(28)		400
	Firm (John Smith, Old Acct.), to Outside Parties	(29)	6,200	
	Firm (John Smith, New Acct.), to Outside Parties	(30)		6,200
	Firm (Wm. Jones, Old Acct.), to Outside Parties	(31)	6,400	
	Firm (Wm. Jones, New Acct.), to Outside Parties	(32)		6,400

LEDGER

<i>Dr.</i>	<i>Cash</i>	<i>Cr.</i>
	<i>To Firm</i>	

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<i>Dr.</i>	<i>Merchandise</i>	<i>Cr.</i>
	<i>To Firm</i>	

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	<i>To Firm</i>	

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<i>Dr.</i>	<i>Expense</i>	<i>Cr.</i>
	<i>To Firm</i>	

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<i>Losses</i>		PROFIT AND LOSS		<i>Gains</i>	
Expense	(24)	\$300	Merchandise	(21)	\$1,100
Total Losses		\$300			
Bal. (Net Gain)	(26)	800			
		\$1,100	Total Gains		\$1,100

<i>Dr.</i>	<i>Firm (John Smith)</i>		<i>Cr.</i>	
<i>To Outside Parties</i>				
	(14)	\$200	Inventory	(4) \$6,000
Total Debits		\$200		
Bal. (Net Asset) (29)		6,200	Net Gain	(27) 400
		\$6,400	Total Credits	\$6,400
			Bal. (Net Asset) (30)	\$6,200

<i>Dr.</i>	<i>Firm (Wm. Jones)</i>	<i>Cr.</i>
<i>To Outside Parties</i>		
Bal. (Net Asset) (31)	\$6,400	Inventory (5) \$6,000 Net Gain (28) 400
	\$6,400	Total Credits \$6,400
		Bal. (Net Asset) (32) \$6,400

To check the correctness of the work we compare the total of the balances brought down as debits with the total of the balances brought down as credits:

DEBITS		CREDITS	
Cash	\$10,700	Bills Payable	\$600
Merchandise	2,500	John Smith	6,200
		Wm. Jones	6,400
Total	\$13,200	Total	\$13,200

It will be noted that in the above statement the heading "Debits" applies to all of the items on the left-hand side and

the heading "Credits" applies to all of the items on the right-hand side.

But the bookkeeper makes the statement in this form:

ASSETS		LIABILITIES	
Cash	\$10,700	Bills Payable	\$600
Merchandise	2,500	John Smith	6,200
		Wm. Jones	6,400
Total	\$13,200	Total	\$13,200

That form is evidently wrong. The heading "Assets" applies to all of the items on the left-hand side, but the heading "Liabilities" applies only to the first item on the right-hand side; the other two items represent net asset. The statement should be made as follows:

ASSETS		LIABILITIES	
Cash	\$10,700	Bills Payable	\$600
Merchandise	2,500		
		Total	\$600
		Bal. (Net Capital) ...	12,600
Total	\$13,200		\$13,200
Bal. (Net Capital) ...	\$12,600	John Smith	\$6,200
		Wm. Jones	6,400
	\$12,600		\$12,600

The balance sheet corresponding to the ledger accounts in this example is given below. It is constructed in the same way as the one shown in Chapter XV, but the form is changed somewhat in order to make a clear distinction between the accounts of original entry and the accounts of duplicate entry. Of course, this change in the form is not essential; it is given merely for the purpose of illustration.

PRINCIPLES OF

BALANCE SHEET

	LEDGER ACCOUNTS		INVENTORY		Excess Debits (Losses)	Excess Credits (Gains)
	Net Debits	Net Credits	Debits (Liabilities)	Credits (Assets)		
	I	II	III	IV	V	VI
Cash.....	\$10,700	....	....	\$10,700	....	....
Merchandise.....	1,400	....	....	2,500	....	\$1,100
Bills Payable....	....	\$600	\$600	....	....	....
Expense.....	300	....	....	....	\$300	....
		Bal. (Net Debit)	Bal. (Net Asset)		Bal. (Net Gain)	
	....	11,800	12,600	....	800	....
TOTALS....	\$12,400	\$12,400	\$12,600	\$12,600	\$1,100	\$1,100
	Bal. (Net Debit)			Bal. (Net Asset)		Bal. (Net Gain)
	\$11,800	....	....	\$12,600	....	\$800
Smith.....	....	\$5,800	Net Asset \$6,200	....	Net Gain \$400	....
Jones.....	....	6,000	Net Asset 6,400	....	Net Gain 400	....
TOTALS....	\$11,800	\$11,800	\$12,600	\$12,600	\$800	\$800

In closing the accounts of duplicate entry on the balance sheet (as in the ledger) there are two possible methods of procedure:

1. The balance of \$12,600 brought down in Column IV represents the net asset as determined by inventory. We divide this amount between Smith and Jones in Column III. Since Smith has drawn out \$200, his portion is \$200 less than that of Jones; therefore we assign \$6,200 to the one and \$6,400 to the other. After these entries have been made, the excess of the debit in Column III over the credit in Column

II, the net gain, is \$400 in each case. The check on the correctness of the work lies in the fact that after the two items of \$400 each have been entered in Column V, Columns V and VI balance.

2. The balance of \$800 brought down in Column VI represents the net gain as determined by the accounts of original entry. We divide this amount equally between Smith and Jones in Column V. Adding the \$400 in Column V to the \$5,800 in Column II we determine Smith's net asset (\$6,200), and adding the \$400 in Column V to the \$6,000 in Column II, we determine Jones' net asset (\$6,400). The check on the correctness of the work lies in the fact that after these amounts have been entered in Column III, Columns III and IV balance.

Theoretically, the first method is the proper way to close the accounts, but practically it is always done according to the second method; that is to say, in practice the bookkeeper always closes the accounts of duplicate entry backwards.

If the reader will turn to the entries given in the above example, he will observe that in the case of the journal entries which record transfers of losses and gains, no second party is indicated. As a matter of fact, these entries are not debits or credits at all, and therefore there is no second party. In merchandise account, for example, the \$1,100 is not a debit to Merchandise; it is not a part of the debit side of the account, it is the excess of the credit side over the debit side. Nor is it a credit to Profit and Loss. That title is not the heading of a ledger account, it is not the name of an imaginary person; it is used in a literal sense, and therefore the words *debtor* and *creditor* are not to be written nor are they to be understood.

In closing cash account it is perfectly logical to say that we borrow the \$10,700 from the imaginary person called Cash, on old account, and lend it to him on new account;

therefore he is creditor to us on the old account and debtor to us on the new account. But in the case of expense account it would be an absurdity to say that we borrow the \$300 from the person called Expense and lend it to the person called Profit and Loss, because the only reason for transferring the item is that the debt is bad, and if the debt is bad we cannot borrow from Expense. To say that we borrow the amount from the person called Expense is equivalent to saying that he pays the debt. It follows, therefore, that the entries which record the losses and gains in the various accounts, and the corresponding entries in the profit and loss statement, are not to be regarded as debits and credits. In order to bring out that fact clearly, we show, in the ledger accounts of our example, the totals of the debits and credits, and then show the item representing loss or gain as the excess of the one side over the other. But in order to indicate that in this example the accounts of duplicate entry are closed backwards (a method of procedure which is convenient in practice but incorrect in theory) we show each partner's net gain as a credit to his account, and then show his net asset as the excess of the one side over the other.

It will be noted, also, that the entries transferring losses and gains can be omitted from the journal (and in practice they always are omitted), and that Profit and Loss can be omitted from the ledger, without affecting the accounts one way or the other. Bookkeepers seem to think that Profit and Loss is an essential part of the ledger; but as a matter of fact, it is not a part of the ledger at all. It is not a ledger account; it is simply the statement of losses and gains, which, properly, should be made on a separate sheet, but is carried in the ledger for the sake of convenience. In many cases it is not even a convenience; it is carried in the ledger merely as a matter of custom.

Sometimes it happens that the bookkeeper wishes to record a loss or gain during the period, and the only advantage of

carrying Profit and Loss in the ledger is that it enables him to do so without throwing his books out of balance; he enters the amount of the loss or gain on the proper side of the account in question and on the opposite side of the profit and loss statement. The latter entry is not a debit or credit to Profit and Loss, it is the excess debit or excess credit of the account in which the loss or gain has occurred; but it serves to keep the total of the entries on the left-hand side equal to the total of the entries on the right-hand side.

When the bookkeeper does not record any losses or gains until the end of the period and then records them all at the same time (and, theoretically, that is what he is supposed to do), there is no advantage whatever in making the statement of losses and gains in the ledger; its proper place is on the balance sheet. If the reader will turn to the balance sheet given above, he will observe that the entries in Columns V and VI are exactly the same as the entries which are made in the ledger under the heading "Profit and Loss."

Profit and Loss, then, is not a ledger account; but in practice it is always carried in the ledger in the same form as the accounts, and therefore it is commonly called an account. The bookkeeper often uses this so-called account for two distinct purposes. When he records transactions in it, he is using it as a current account of original entry, of the same class as Interest and Expense (as if the title were "Miscellaneous Causes of Outgo and Income"); when he transfers losses and gains to it, he is using it as the statement of losses and gains.

The title is also used in another way. In railroad accounting (and in many other cases also) the bookkeeper closes Profit and Loss by balance and carries the balance down to new account. When he does that, he is carrying Profit and Loss as an account of duplicate entry; it is exactly equivalent to the account which is commonly called Surplus (or Deficit). When the bookkeeper carries Profit and Loss as an account of

duplicate entry, he usually makes his statement of losses and gains under the heading "Income," "Revenue," or some similar expression.

If accountants had any regard for accuracy in nomenclature, they would have one heading for the statement of losses and gains, another for the account of original entry representing miscellaneous causes of outgo and income, and another for the account of duplicate entry representing surplus or deficit.

CHAPTER XVIII

ACCOUNTS OF DUPLICATE ENTRY IN PARTNERSHIP ACCOUNTING
AND IN CORPORATION ACCOUNTING.

In the case of a firm, according to current practice, each partner always has a proprietorship account and usually a personal account also. His proprietorship account is between him, as a member of the firm, and the outside parties collectively; his personal account is between him, as an outside party, and the firm.

Assuming, for example, that Thos. Brown is a member of a firm, his interest amounting to \$60,000, and that he has lent \$2,000 to the firm, his personal account is in this form:

<i>Dr.</i>	<i>Thos. Brown</i>	<i>Cr.</i>
	<i>To Firm</i>	
		\$2,000

And his proprietorship account is in this form:

<i>Dr.</i>	<i>Firm (Thos. Brown)</i>	<i>Cr.</i>
	<i>To Outside Parties</i>	
		\$60,000

If a partner's personal account shows a credit, it means that the firm owes him so much money; the account is on the same footing as any other personal account, except that it is partially self-contradictory. But in the case of the credit which appears in his proprietorship account, it is not the firm that owes him this amount, it is the outside parties collectively.

That is not a nominal difference, it is a real difference. If a firm owes one of its members a certain amount, each of the other partners is responsible for his proportion of it;

but the other partners have no responsibility in connection with the amount which is owed to him by the outside parties collectively. If any of the assets prove to be worthless, he loses; he cannot call upon the other partners for reimbursement.

Although it is the general custom to carry partnership accounts with the members of a firm, in many cases it is entirely unnecessary. When the articles of agreement specify the interests of the various partners as certain fractional parts of the whole, there is no need of proprietorship accounts. If under such circumstances proprietorship accounts are carried, they should always show each member's proportionate interest in the business; it is clearly an inconsistency when the articles of agreement say that a partner's interest is one thing and the ledger says that it is something else.

The example given in the preceding chapter is in accordance with the practice which is commonly followed in such cases; but it is evident that the result is inconsistent. Smith and Jones are supposed to be equal partners, yet at the end of the period, according to the ledger, Smith's interest is worth \$6,200, while that of Jones is worth \$6,400. In other words, although they are supposed to have equal interests, the ledger shows that Smith's interest is $62/126$ and Jones' interest is $64/126$.

In the example, instead of saying that Smith draws out \$200 for personal use, it would be more in accordance with the principles of correct accounting to say that he borrows \$200 from the firm. In that case, to record the transaction we would credit Cash and debit Smith's personal account, and the debit would represent an asset. The net capital, then, would be \$12,800, and each partner's interest would be \$6,400; but, of course, part of Smith's share would be offset by the debt of \$200 which he owes to the firm. The

result would be the same as before, but the record would be more correct in form.

When the various interests are fixed, one partner should never contribute or withdraw anything unless the others do likewise, each in proportion to his interest; net capital account (or accounts like Contributed Capital, Surplus, etc.) should be carried in place of the partnership accounts, and a personal account should be carried with each member of the firm. The method of procedure, then, would be as follows:

To declare a dividend:

Debit net capital account (or Surplus) with the total amount of the dividend and credit each partner's personal account with his proportion of it.

When any partner receives his dividend, debit his personal account and credit Cash.

To levy an assessment:

Credit net capital account (or Contributed Capital) with the total amount of the assessment and debit each partner's personal account with his proportion of it.

When any partner pays his assessment, credit his personal account and debit Cash.

But in many cases the articles of agreement specify that each partner's interest, instead of being a fixed part of the whole, shall be in proportion to his investment in the business. Under such circumstances it is, of course, necessary to carry partnership accounts as well as personal accounts, in order to distinguish between the contributions and withdrawals made by each partner and the amounts which he may lend to, or borrow from, the firm. The amount of his interest depends upon the contributions and withdrawals; it is not affected by the loans.

Theoretically, as explained in Chapter VIII, there is no reason why the books of an individual proprietor or of a

firm (when the interests are fixed) should not be kept in the same form as those of a corporation. But in practice the bookkeeper always carries net capital account when the proprietor is an individual, partnership accounts when the proprietor is a firm, and accounts like Capital Stock and Surplus when the proprietor is a company.

In the first two cases the purpose of the accounts of duplicate entry is evident, their object being to show the net capital of the single proprietor in the one case, and of the various partners in the other case. In these two cases, then, the subject presents no difficulties; but in the books of corporations accounts of duplicate entry are used in great variety, and it is in this form of accounting that they need explanation, since the bookkeeper has never had any but the vaguest ideas as to their meaning.

In corporation accounting the account under the head of Capital Stock represents the capital contributed by the shareholders, and therefore under normal conditions the net capital equals the capital stock at the beginning and exceeds it at any subsequent date. But under adverse conditions the net capital at a subsequent date may be less than the capital stock (in which case the capital is said to be impaired), or the net capital may be negative, that is to say, the liabilities may exceed the assets (in which case, the company, according to the books, is insolvent). There are, then, four possible cases, as illustrated by the following examples:

1. The net capital equals the capital stock.

ASSETS		LIABILITIES	
Cash	\$100,000	None.	
		Bal. (Net Capital) ..	\$100,000
Total	\$100,000		\$100,000
Bal. (Net Capital) ..	\$100,000	Capital Stock	\$100,000
	\$100,000		\$100,000

2. The net capital exceeds the capital stock.

ASSETS		LIABILITIES	

	.....	Total	\$40,000
	.....	Bal. (Net Capital) ..	120,000
Total	\$160,000		\$160,000
Bal. (Net Capital) ..	\$120,000	Capital Stock	\$100,000
		Surplus	20,000
	\$120,000		\$120,000

3. The net capital is less than the capital stock, but the assets exceed the liabilities.

ASSETS		LIABILITIES	

	.....	Total	\$40,000
	.....	Bal. (Net Capital) ..	90,000
Total	\$130,000		\$130,000
Bal. (Net Capital) ..	\$90,000	Capital Stock	\$100,000
Deficit	10,000		
	\$100,000		\$100,000

4. The net capital is negative, that is to say, the liabilities exceed the assets.

ASSETS		LIABILITIES	

Total	\$50,000		
Bal. (Net Capital) ..	30,000		
	\$80,000	Total	\$80,000
Deficit	\$130,000	Bal. (Net Capital) ..	\$30,000
		Capital Stock	100,000
	\$130,000		\$130,000

It will be noted that double-entry bookkeeping does not use the signs “+” and “—”, but the position of the entry on the statement indicates whether the net capital is positive or negative.

The truth of the remark that the bookkeeper has only the vaguest ideas as to the meaning of accounts of duplicate entry is evident from the fact that when the balances of such accounts are brought down as debits he classifies them as assets, and when they are brought down as credits he classifies them as liabilities, which is an utter absurdity. The balances of accounts of duplicate entry do not represent assets and liabilities (assets and liabilities are not to be counted twice); they do not represent concrete things at all; they represent portions of the net capital regarded as an abstract quantity.

The reader will find it easy to understand these accounts, as used in corporation accounting, if he will keep in mind the fact that their only value is in their bearing upon the matter of dividends (or assessments). When the books of a corporation are closed at the end of a period, the first question which arises is: What dividends can be declared—if any? The object of the subdivisions of net capital account is to facilitate the discussion of that question; they serve no other purpose whatsoever. Dividends are to be paid only out of profits, they are not to be paid out of the contributed capital; therefore there can be no dividends unless the net capital exceeds the capital stock. But even when that is the case, it does not follow that all of the excess can be distributed; as a rule, certain portions of it must be reserved for various reasons.

For illustration we will suppose that the total of the assets is \$6,000,000 and the total of the liabilities \$2,000,000. The net capital, then, is \$4,000,000, and assuming the capital stock to be \$3,000,000, the surplus, that is to say, the remainder of the net capital, is \$1,000,000. But we will

assume that this surplus is not all available for dividends; certain portions of it must be reserved, for the following reasons:

1. We have issued bonds, and having invested the proceeds in permanent improvements must accumulate profits in order to be prepared to pay off the bonds when they become due. The accumulation should now amount to \$400,000, therefore that amount must be reserved.

2. We are carrying our own insurance and are accumulating profits to meet possible fire losses. The accumulation should now amount to \$140,000, therefore that amount must be reserved.

3. We have planned to make an addition to the plant at a cost of \$150,000, therefore that amount must be reserved for extensions.

4. Our experience has shown that of the accounts receivable which we suppose to be good, a certain percentage generally proves to be bad. To provide for this probable loss, we must reserve \$10,000 for bad debts.

After deducting these amounts from the \$1,000,000, the surplus, that is to say, the remainder of the net capital, is \$300,000. The bookkeeping way to make the deductions is simply to debit Surplus and credit the accounts mentioned above. Our statement, then, is as follows:

ASSETS	LIABILITIES
.....
.....
.....
.....
Total .....\$6,000,000	Total .....\$2,000,000
Bal. (Net Capital) ...\$4,000,000	Bal. (Net Capital) .. 4,000,000
	\$6,000,000
	Capital Stock .....\$3,000,000
	Sinking Fund 400,000
	Insurance Reserve ... 140,000
	Res'v'd for Extensions 150,000
	Res'v'd for Bad Debts 10,000
	Surplus 300,000
\$4,000,000	\$4,000,000

In this statement we have not answered the question as to what dividends can be declared, but we have narrowed it down. We have not indicated what can be distributed, but we have indicated certain amounts which are not to be distributed. The question now is, not what part of this \$1,000,000 can be distributed, but what part of this \$300,000 is it advisable to distribute in dividends.

If, now, we decide to declare a dividend of 6 per cent on the contributed capital, we debit Surplus and credit Dividend and carry the item as a liability. The statement then takes this form:

ASSETS	LIABILITIES
Miscellaneous .....\$6,000,000	Miscellaneous .....\$2,000,000
	Dividend 180,000
	Total .....\$2,180,000
	Bal. (Net Capital)... 3,820,000
Total .....\$6,000,000	\$6,000,000
Bal. (Net Capital)...\$3,820,000	Capital Stock .....\$3,000,000
	Sinking Fund 400,000
	Insurance Reserve .. 140,000
	Res'v'd for Extensions 150,000
	Res'v'd for Bad Debts 10,000
	Surplus 120,000
\$3,820,000	\$3,820,000

As illustrated by this example, the subdivisions of net capital account which are used in the books of corporations consist of reserve accounts and a residual account. That is to say, they consist of accounts showing the amounts which for various reasons are to be regarded as set aside or reserved, and an account showing the remainder of the net capital after these amounts have been deducted. Capital Stock shows the amount which is to be reserved as representing the contributed capital, and the other reserve accounts show the

amounts which are supposed to be set aside for reasons which are more or less clearly indicated by the titles.

"Surplus" is the term which is commonly used to designate the residual account; but banks use that term as the title of a reserve account, and use the expression "Undivided Profits" to designate the residual account; while railroad accountants use the term "Profit and Loss" as the title of the residual account, and make their statement of losses and gains under the heading "Income," "Revenue," or some similar expression. All of which goes to show that the nomenclature of accounting is sadly in need of revision.

CHAPTER XIX

DEBTS AND OBLIGATIONS—CONTINGENT LIABILITIES—ANALOGY
BETWEEN THE LANGUAGE OF DOUBLE-ENTRY BOOKKEEPING
AND ORDINARY LANGUAGE.

In discussing the subject of bookkeeping it is necessary to distinguish clearly between the words *debt* and *obligation*; a debt is always an obligation, but an obligation is not necessarily a debt. Only an obligation in the form of a debt can be an asset or a liability, and, therefore, while we are bound to record every debt in the ledger, we are not bound to record every obligation.

For example, if a company issues 5 per cent bonds to the amount of \$100,000 payable in ten years, it assumes two obligations, one to pay \$100,000 principal and the other to pay \$50,000 interest. One of these obligations is a debt, that is to say, it is a liability; the other is not. The bookkeeper does not make any record of the interest, except as it accrues.

Every contract or agreement involves an idea both of asset and of liability; the above example involves two ideas of asset and two of liability. In the case of the principal, the asset is the money received for the bonds, the liability is the obligation to redeem them; in this case both the asset and the liability have accrued. In the case of the interest, the asset is the right to use the principal for ten years, the

liability is the obligation to pay the interest; in this case neither the asset nor the liability has accrued.

As another illustration, exactly analogous to the case of the interest on the bonds, we will assume that a certain company leases a building for ten years at an annual rental of \$5,000; in other words, it agrees to pay \$50,000 in the course of ten years. In this case the asset is the right to use the building for ten years, the liability is the obligation to pay the rent; but as yet neither the asset nor the liability has accrued.

It is not customary to record such items in the books at all (except as the debt accrues), but if it were thought worth while, it could be done by using two accounts, one to show the item as an asset and the other to show it as a liability. If the item increases, we debit the asset account and credit the liability account; if the item decreases, we credit the asset account and debit the liability account.

In the case of the lease mentioned above, the first entry would be as follows:

	<i>Dr.</i>	<i>Cr.</i>
Lease of Building (Asset)	\$50,000	
Lease of Building (Liability)		\$50,000

Since the amount involved in the lease decreases by \$5,000 annually, the entry at the end of each year would be in this form:

	<i>Dr.</i>	<i>Cr.</i>
Lease of Building (Liability)	\$5,000	
Lease of Building (Asset)		\$5,000

At the expiration of the lease, the accounts would appear in the ledger as follows:

PRINCIPLES OF

<i>Dr.</i>	<i>Lease of Building (Asset)</i>	<i>Cr.</i>
Jan. 1, 1901	\$50,000	
		Dec. 31, 1901 \$5,000
		Dec. 31, 1902 5,000
		Dec. 31, 1903 5,000
		Dec. 31, 1904 5,000
		Dec. 31, 1905 5,000
		Dec. 31, 1906 5,000
		Dec. 31, 1907 5,000
		Dec. 31, 1908 5,000
		Dec. 31, 1909 5,000
		Dec. 31, 1910 5,000
	\$50,000	\$50,000

<i>Dr.</i>	<i>Lease of Building (Liability)</i>	<i>Cr.</i>
Dec. 31, 1901 \$5,000		Jan. 1, 1901 \$50,000
Dec. 31, 1902 5,000		
Dec. 31, 1903 5,000		
Dec. 31, 1904 5,000		
Dec. 31, 1905 5,000		
Dec. 31, 1906 5,000		
Dec. 31, 1907 5,000		
Dec. 31, 1908 5,000		
Dec. 31, 1909 5,000		
Dec. 31, 1910 5,000		
	\$50,000	\$50,000

By using two accounts any obligation, or, for that matter, any item which is neither an asset nor a liability, can be entered in the books. Recording an item in that way simply makes a memorandum of it and does not affect the accounts one way or the other.

When a person promises to do a certain thing, he assumes a positive obligation; when he promises to do a certain thing in case certain circumstances arise, he assumes a conditional obligation. In bookkeeping, the conditional obligations which the proprietor assumes are commonly called "contingent liabilities."

For illustration we may take the case of a fire-insurance company. The company has policies outstanding to a certain amount and the premiums on the policies have been paid. Now, in the proper sense of the word, the only liability of the company in connection with these policies is the amount of the prepaid premiums; meaning, of course, not the original amount prepaid, but the amount which stands as prepaid now. This amount is a debt, since the company has received the money from the policyholders and, as yet, has given nothing in return. The company's contingent liability, however, is limited only by the total amount of the policies, with the probability that the loss will bear about the same ratio to the whole amount as in previous years. But the contingent liability is not a debt and therefore it is not a liability, since the word *liability*, when used alone, means an accrued liability, and in the case of insurance against loss by fire the liability does not accrue until the loss occurs.

All cases in which an asset or a liability may accrue under certain conditions, represent contingent assets and liabilities. A contingent asset may be recorded in the ledger both as an asset and as a liability, thus making a memorandum of it without affecting the accounts; but it is customary not to record contingent assets at all, while contingent liabilities are recorded by means of accounts of duplicate entry.

In the case of the fire-insurance company, for example, the amount of the prepaid premiums should appear as a liability, while the estimated excess of the contingent liability (that is to say, the estimated amount by which the losses may, perhaps, exceed the premiums) should appear as a portion of the net capital reserved to meet the liability when it accrues or if it accrues. Under normal conditions the amount of the prepaid premiums is more than enough to cover the losses; in other words, the increase of net capital due to the gradual extinction of liability under the head of Prepaid Premiums is greater than the decrease due to loss

by fire. But to provide for the possibility of extraordinary losses, a reserve account is carried to indicate that a certain portion of the net capital is not to be distributed in dividends.

It is not always easy to determine whether a liability has really accrued or not, and therefore it is sometimes a question whether to record an item as a present liability or as a portion of the net capital reserved to meet a future liability. If, for example, a bank pays interest on time deposits with the understanding that if the money is drawn out before the time expires the interest is forfeited, then the liability of the bank on account of the interest is, to a certain extent, contingent. Therefore the item representing the amount of such interest which has accrued to date may be entered in either of two ways.

For illustration, we will assume that the item amounts to \$5,000, and that before it is taken into consideration at all, the statement of the bank is as follows:

ASSETS	LIABILITIES
.....
Total .....\$1,200,000	Total .....\$1,030,000
Bal. (Net Capital)... \$170,000	Bal. (Net Capital)... 170,000
	\$1,200,000
\$170,000	Capital Stock \$100,000
	Surplus 50,000
	Undivided Profits .. 20,000
	\$170,000

If we regard the liability on account of the interest as an accrued liability, the entry will be in this form:

	<i>Dr.</i>	<i>Cr.</i>
Profit and Loss	\$5,000	
Accrued Interest Payable		\$5,000

The debit to Profit and Loss is transferred to Undivided Profits, and then the statement takes this form:

ASSETS	LIABILITIES
.....	Miscellaneous .....\$1,030,000
.....	Accrued Int. Pay. ... 5,000
.....	
.....	Total .....\$1,035,000
	Bal. (Net Capital).. 165,000
Total .....\$1,200,000	
	\$1,200,000
Bal. (Net Capital).. \$165,000	
	Capital Stock \$100,000
	Surplus 50,000
	Undivided Profits .. 15,000
\$165,000	\$165,000

If, on the other hand, we regard the item as a contingent liability, the entry will be in this form:

	<i>Dr.</i>	<i>Cr.</i>
Undivided Profits	\$5,000	
Reserved for Interest		\$5,000

And the statement will be as follows:

ASSETS	LIABILITIES
.....
.....
.....
.....	
	Total .....\$1,030,000
	Bal. (Net Capital)... 170,000
Total .....\$1,200,000	
	\$1,200,000
Bal. (Net Capital)... \$170,000	
	Capital Stock \$100,000
	Surplus 50,000
	Reserved for Int. .. 5,000
	Undivided Profits .. 15,000
\$170,000	\$170,000

It will be noted that in the first case we debit Profit and Loss and credit Accrued Interest Payable, and carry the item as a liability, while in the second case we debit Undivided Profits and credit Reserved for Interest. To debit Profit and Loss and credit Reserved for Interest would be an absurdity; an item which has been charged out as a loss does not represent a reserve, it represents a liability. The accruing of a liability is loss. Therefore, if we wish to indicate that the loss has occurred, we must represent the liability as accrued; but if we wish to indicate, not that the loss has occurred, but that it is likely to occur in the future, we must represent a portion of the net capital as reserved to meet the liability when it accrues or if it accrues.

The reader should keep in mind the fact that double-entry bookkeeping is a language—a mode of expression—and should not overlook the analogy which it bears to ordinary language. In the ledger account a debit entry means that the first party owes the second party, it corresponds to the active form of the verb; a credit entry means that the first party is owed by the second party, it corresponds to the passive form.

In the example given above, the difference between the two cases is the difference between the indicative or positive form of the verb and the subjunctive or conditional form. In the one case we say that the loss of \$5,000 due to the accruing of interest payable has occurred; in the other case we say that it may occur or is likely to occur. In the one case we make the positive statement that the net capital of the bank is \$165,000. In the other case we make a modified statement; we say that the net capital is \$170,000, but \$5,000 is reserved to meet a liability which is expected to accrue in the future.

CHAPTER XX

TO OPEN THE BOOKS OF A CORPORATION—TREASURY STOCK.

To form a company the incorporators decide upon the amount of the capital stock and then each of them subscribes for a certain portion of it. If the capital stock is \$100,000 and it is all subscribed, the entry to open the books is as follows:

	<i>Dr.</i>	<i>Cr.</i>
Subscription	\$100,000	
Capital Stock		\$100,000

Here the amount under the head of Subscription represents asset, because the subscribers have promised to contribute the amount and the law recognizes the obligation; while the amount under the head of Capital Stock represents the net capital. Assuming that all the payments are made in cash, then as each payment is made we debit Cash and credit Subscription. After all the payments have been made, subscription account balances and the statement becomes:

	<i>Dr.</i>	<i>Cr.</i>
Cash	\$100,000	
Capital Stock		\$100,000

The above are the entries which are made in the journal and are posted to the ledger. The records showing the names of the incorporators, the amount for which each of them subscribes, the payments which he makes, etc., etc., are, of course, kept in auxiliary books.

But sometimes the incorporators do not subscribe for all of the stock; they subscribe for only a portion of it, and then the remainder (called treasury stock) is held in common.

The advantage of this method of procedure is that if at any time the stockholders find that they need more capital in order to enlarge the business, they can sell the treasury stock, or such portion of it as may be necessary, without further formality.

In some cases the law does not permit the incorporation of a company unless all of the stock is subscribed, and in some cases, also, it makes a distinction between stock which has never been issued and stock which has been issued and subsequently re-acquired. But the laws of different states and countries vary, while the principles of double-entry book-keeping are the same everywhere, and therefore we will discuss the subject purely from the accounting standpoint, regardless of the legal aspect of the case.

We will assume, then, that the capital stock is \$100,000 and that the subscriptions amount to \$60,000, leaving stock of a nominal value of \$40,000 unissued. The entry to open the books is as follows:

	<i>Dr.</i>	<i>Cr.</i>
Subscription	\$60,000	
Treasury Stock	40,000	
Capital Stock		\$100,000

According to current practice the bookkeeper makes no distinction between liability and net asset nor between asset and net liability. He says that the amount under the head of Capital Stock is a liability and that the amount under the head of Treasury Stock is an asset—which is an absurdity. The amount under the head of Subscription is an asset, because the incorporators have promised to contribute it; it is an account receivable. But no one has promised to contribute the amount under the head of Treasury Stock, and therefore it is not an asset.

Subscription is an account of original entry, while Treasury Stock and Capital Stock are accounts of duplicate

entry. If the titles were written in full, the entries to open the books would be in this form:

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	<i>Dr.</i>	<i>Cr.</i>
Subscription, to Company	\$60,000	
Company (Treasury Stock), to Outside Parties	40,000	
Company (Capital Stock), to Outside Parties		\$100,000

LEDGER

<i>Dr.</i>	<i>Subscription To Company</i>	<i>Cr.</i>
	\$60,000	
<i>Dr.</i>	<i>Company (Treasury Stock) To Outside Parties</i>	<i>Cr.</i>
	\$40,000	
<i>Dr.</i>	<i>Company (Capital Stock) To Outside Parties</i>	<i>Cr.</i>
		\$100,000

The statement corresponding to the above ledger accounts would be in this form:

ASSETS	LIABILITIES
Subscription \$60,000	None.
	Bal. (Net Capital) ... \$60,000
Total \$60,000	\$60,000
Bal. (Net Capital) .. \$60,000	Capital Stock \$100,000
Treasury Stock 40,000	
\$100,000	\$100,000

In this statement the net capital is indicated as composed of two items, positive net capital to the amount of \$100,000 and negative net capital to the amount of \$40,000. That is simply another way of saying that we enter the total amount of the capital stock as representing net asset, and then enter the amount of the treasury stock as an offset to that part of the capital stock which was not subscribed. The idea may also be expressed in this way: To say that the net capital (net asset) is \$60,000 means that the outside parties collectively owe the company that amount. Now to say that the outside parties owe the company \$60,000 is equivalent to saying that the outside parties owe the company \$100,000 and the company owes the outside parties \$40,000.

We will now assume that the company has been in business for some time, but none of the treasury stock has been issued. Its statement is as follows:

ASSETS	LIABILITIES
.....
Total \$90,000	Total \$20,000 Bal. (Net Capital) ... 70,000
Bal. (Net Capital) ... \$70,000 Treasury Stock 40,000	..... \$90,000 Capital Stock \$100,000 Surplus 10,000
\$110,000	\$110,000

This statement means simply that the stockholders contributed \$60,000 and their net capital is now \$70,000, therefore they have a surplus of \$10,000.

According to the current method of making such statements the bookkeeper, if he shows treasury stock at all, shows it as an asset, and that is so misleading that in some cases the law has thought it necessary to forbid the practice altogether.

But as illustrated by the above example, when the report is made in proper form there is nothing misleading about it, since the amount of the net capital is distinctly stated, and it is evident at a glance that the method of determining the net capital is entirely independent both of the capital stock and of the treasury stock.

CHAPTER XXI

DEPRECIATION—RESERVES TO MEET FIRE LOSSES—A COMMON ERROR IN THE TREATMENT OF SUCH ACCOUNTS—GENERAL TEST TO WHICH EVERY SET OF BOOKS SHOULD CONFORM.

The term *depreciation* means the decrease in value which in most things inevitably occurs with the lapse of time. The plant of a manufacturing establishment, for example, gradually becomes less efficient, in spite of the repairs which are made as occasion demands to keep it in running order. Machinery finally becomes so worn out or so old-fashioned that it no longer pays to operate it, and it must be replaced. Depreciation, then, is an expense and sooner or later it must be charged out as a loss.

If we credit the plant account at the end of the period with the estimated value of the plant at that time and carry it down to new account as a debit, then, of course, the loss by depreciation appears in that account. But it is desirable that the account should show the original cost of the plant rather than its present value, and there are two other ways in which the record of depreciation may be kept:

1. At the end of each period we debit Expense with the estimated amount of the depreciation and credit Depreciation of Plant and carry the item as a liability.
2. At the end of each period we debit Surplus and credit Depreciation Reserve, and carry the item as a portion of the net capital reserved to meet the loss when it occurs.

In the first case we recognize the fact that the loss has already occurred. In the second case we are postponing the recognition of the loss until it becomes necessary to replace all or part of the plant.

But loss by depreciation is inevitable, and one of the principal purposes of accounting is to assign all losses and gains to the proper causes and to the proper periods. There-

fore, as between the two methods given above, it is more logical to charge out the estimated amount of the depreciation as a loss at the end of each period, because, even though the estimate be very far from the truth, we come nearer to an equitable distribution than we would by throwing the whole loss upon the last period.

For illustration, we will assume that at the end of each period we make this entry:

	<i>Dr.</i>	<i>Cr.</i>
Expense	\$5,000	
Depreciation of Plant		\$5,000

And that the statement is now as follows:

ASSETS		LIABILITIES	
Miscellaneous	\$115,000	Miscellaneous	\$50,000
Plant	100,000	Depreciation of Plant.	30,000
Cash	15,000		
		Total	\$80,000
		Bal. (Net Capital)....	150,000
Total	\$230,000		\$230,000
Bal. (Net Capital)....	\$150,000	Capital Stock	\$100,000
		Surplus	50,000
	\$150,000		\$150,000

In this statement we are carrying the plant as an asset at a valuation of \$70,000; that is to say, we show the original cost (\$100,000) as an asset and the estimated amount of the depreciation (\$30,000) as a liability, making a net asset of \$70,000.

Now we will assume that we have to spend \$10,000 to replace certain machinery which is worn out. The entry is as follows:

	<i>Dr.</i>	<i>Cr.</i>
Depreciation of Plant	\$10,000	
Cash		\$10,000

This entry does not affect the net capital, since the item under the head of Depreciation of Plant has already been charged out as a loss, and losses are not to be counted twice. The statement therefore takes this form:

ASSETS	LIABILITIES
Miscellaneous .....\$115,000	Miscellaneous \$50,000
Plant 100,000	Depreciation of Plant. 20,000
Cash 5,000	
	Total \$70,000
	Bal. (Net Capital).... 150,000
Total .....\$220,000	
Bal. (Net Capital)....\$150,000	Capital Stock .....\$100,000
	Surplus 50,000

In this statement we are carrying the plant at a valuation of \$80,000, which of course is correct; if it was worth \$70,000 in the first statement it is now worth \$80,000, since we have just spent \$10,000 on it.

Here, again, the reader will note the distinction between the legal definition and the bookkeeping definition of the term *liability*. In the legal sense the item of \$20,000 under the head of Depreciation of Plant is not a liability, but in the bookkeeping sense it is a liability. In the legal sense of the term there can be no liability except a debt owed to a real person or to an organization of real persons; but in bookkeeping a debt owed to an imaginary person called Depreciation of Plant represents a real liability, just as a debt owed by an imaginary person called Plant represents a real asset; and because it does represent a real liability it partially offsets the real asset. In ordinary language the words *asset* and *liability* are nearly, but not exactly, opposite in meaning; but in double-entry bookkeeping they are exact opposites, and, therefore, if a debt owed to the proprietor by an

imaginary person can represent a real asset, a debt owed by the proprietor to an imaginary person can represent a real liability.

The accountant can, of course, conform to the ordinary use of the words *asset* and *liability* by making his statement in this way:

ASSETS	LIABILITIES
Miscellaneous .....\$115,000	Miscellaneous \$50,000
Plant—	
Cost .....\$100,000	Total \$50,000
Depreciation 20,000 80,000	Bal. (Net Capital).... 150,000
Cash 5,000	
Total .....\$200,000	\$200,000
Bal. (Net Capital) ....\$150,000	Capital Stock .....\$100,000
	Surplus 50,000
\$150,000	\$150,000

But when he does that he is not using the language of double-entry bookkeeping, since that system of accounting excludes subtraction; it always uses a form in which the two sides are opposites, and therefore a deduction is to be expressed, not by subtracting the amount from the one side, but by adding it to the other side. I would not be understood, however, as saying that the last form of statement is wrong; on the contrary, in many cases it is preferable to the other. When the people for whom the report is made do not understand bookkeeping language it is better to use ordinary language.

In the current practice of double-entry bookkeeping the accountant makes no distinction between a reserve and a liability; in fact, regardless of the evident contradiction in terms, he says that a reserve is a liability. Owing to his confusion of thought on that point he is accustomed to treat depreciation in this way: At the end of each period he debits

Profit and Loss (or Expense) with the estimated amount of the depreciation and credits Depreciation Reserve, apparently blind to the utter absurdity of charging out an item as a loss and then calling it a reserve. If the bookkeeper wishes to say that the loss has occurred, he should debit Expense and credit Depreciation of Plant, and carry the item as a liability. But if he wishes to say, not that the loss has occurred, but that it is expected to occur in the future, he should debit Surplus and credit Depreciation Reserve, and carry the item as a portion of the net capital reserved to meet the loss when it occurs or if it occurs.

Fire Insurance:

A prepaid premium on a fire-insurance policy is an asset from the standpoint of the policyholder (and a liability from the standpoint of the insurance company), but it is an asset which constantly diminishes, and disappears when the time covered by the policy expires. The treatment of money paid out for insurance against fire is therefore very simple. At any given time that portion of the premium which corresponds to the unexpired term represents asset and that portion which corresponds to the time which has expired represents loss. But large companies whose property is scattered often carry their own insurance; or, to put it more accurately, they do not carry any insurance at all, but they make provision for meeting fire losses. In this case, as in the case of depreciation, there are two ways in which the account may be kept.

1. At the end of each period we debit Expense with the estimated amount of the risk and credit Insurance, and carry the item as a liability.

2. At the end of each period we debit Surplus and credit Insurance Reserve, and carry the item as a portion of the net capital reserved to meet the loss when it occurs or if it occurs.

But there is this difference between depreciation and insurance: Loss by depreciation is inevitable, but loss by fire is not; loss by depreciation is continuous, but loss by fire is, at most, occasional. At any given time it is proper to assume that a certain loss by depreciation has already occurred, but it is not proper to assume that a loss by fire has already occurred unless property has actually been destroyed by fire. Therefore, while the logical way to treat depreciation is by the first method, the logical way to treat insurance is by the second method.

For illustration we will assume that at the end of each period a certain company makes this entry:

	<i>Dr.</i>	<i>Cr.</i>
Surplus	\$5,000	
Insurance Reserve		\$5,000

And that its statement is now as follows:

ASSETS		LIABILITIES	
Miscellaneous	\$5,000,000	Miscellaneous	\$1,000,000
Building No. 8	20,000	Total	\$1,000,000
		Bal. (Net Capital) ..	4,020,000
Total	\$5,020,000		\$5,020,000
Bal. (Net Capital) ..	\$4,020,000	Capital Stock	\$3,000,000
		Insurance Reserve ..	60,000
		Surplus	960,000
	\$4,020,000		\$4,020,000

If, now, Building No. 8 is destroyed by fire, the entries will be as follows:

	<i>Dr.</i>	<i>Cr.</i>
Profit and Loss	\$20,000	
Building No. 8		\$20,000
Insurance Reserve	20,000	
Surplus		20,000

The debit to Profit and Loss is, of course, finally transferred to Surplus and cancels the credit to that account; therefore the statement takes this form:

ASSETS	LIABILITIES
Miscellaneous .....\$5,000,000	Miscellaneous .....\$1,000,000
	Total .....\$1,000,000
	Bal. (Net Capital).. 4,000,000
Total .....\$5,000,000	\$5,000,000
Bal. (Net Capital)..\$4,000,000	Capital Stock .....\$3,000,000
	Insurance Reserve . 40,000
	Surplus 960,000
\$4,000,000	\$4,000,000

In the preceding example discarding the old machinery did not affect the net capital, because the item under the head of Depreciation of Plant had already been charged out as a loss; but in this example the destruction of the building reduces the net capital, because the item under the head of Insurance Reserve has never been charged out as a loss.

Since the debit to Profit and Loss is finally transferred to Surplus and cancels the credit to that account, the bookkeeper often omits these two entries and simply debits Insurance Reserve and credits Building No. 8. But to record the destruction of the building in that way is entirely wrong, because it hides, or at all events it fails to record, a loss of \$20,000. Profit and Loss is the statement of losses and gains, and in correct accounting every loss and every gain must be included in that statement (and aside from contributions and withdrawals, every increase of net capital is gain and every decrease is loss). When the entries are made as shown in our example, the loss due to the destruction of the building appears in the profit and loss statement; but it does not appear there when the bookkeeper simply debits Insurance

Reserve and credits Building No. 8. In that case the books show a reduction of the net capital without any record of the loss in the statement of losses and gains.

"Building No. 8" is an account of original entry, while Insurance Reserve is an account of duplicate entry, and it is never admissible to credit an account of original entry and debit an account of duplicate entry, except to record a withdrawal; nor is it ever admissible to debit an account of original entry and credit an account of duplicate entry, except to record a contribution.

There is a general test which can be applied to any set of books to cover any number of years. If the books have been kept correctly, Profit and Loss will show the net gain or net loss and the accounts of duplicate entry will show the net amount contributed or withdrawn during each period since the books were originally opened. By combining the periods we determine the net gain or loss and the net amount contributed or withdrawn during the whole time which the books cover. We now take the net capital at the beginning, add the net gain or subtract the net loss, add the net amount contributed or subtract the net amount withdrawn, and compare the result with the net capital as shown at the present time. If the two amounts do not agree, the books have not been kept correctly.

The reader will observe that if in the example given above the bookkeeper records the loss of the building by debiting Insurance Reserve and crediting Building No. 8, the books will not conform to this test; there will be a discrepancy of \$20,000.

CHAPTER XXII

SINKING FUNDS.

A sinking fund is a fund which is accumulated for the purpose of paying off a debt. To comply with this definition the fund must not be used in the business, but must be set aside to the end that when the debt becomes due it may be paid without borrowing money and without injuring the business. A so-called sinking fund which is invested in the business is not a sinking fund at all, because when the time comes to pay the debt it may be impossible to withdraw the money without crippling the business.

Any fund which is accumulated for the purpose of paying off a debt is a sinking fund; but to speak of accumulating such a fund suggests the idea of a debt of considerable magnitude running for a considerable length of time, and since such debts are usually in the form of bonds, the term *sinking fund* is generally used to mean a fund which is accumulated for the purpose of paying off bonds.

In this connection it is necessary to distinguish clearly between paying a debt and paying it off. A debt due to one party is often paid by borrowing money from another party, but when we say that a debt is paid off we mean that it is paid without incurring a new debt. Sinking funds are accumulated only in connection with debts which are to be paid off.

In the case of the great majority of bonds issued by railroad companies, for example, there is no intention of paying them off, and there is no reason why they should be paid off. The intention is to refund them, that is to say, to pay them when they mature by issuing other bonds in their place; to all intents and purposes the bonds are perpetual. In that case, of course, there is no need of a sinking

fund; but if a company issues bonds with the intention of paying them off when they become due, it must accumulate a sinking fund for the purpose. Moreover, bonds are generally issued for the purpose of raising money to make permanent improvements, and money which has been invested in that way cannot be taken out again as long as the business continues, since the company cannot sell its permanent improvements without going out of business. It follows, therefore, that if a fund is to be accumulated for the purpose of paying off the bonds, it must be accumulated out of profits.

In many cases the mortgage or trust deed under which bonds are issued requires that the company pay a certain amount at the end of each period to the trustee of the sinking fund, and also requires that these payments be made out of profits. What that amounts to is that the company binds itself not to distribute any dividends which would prevent it from accumulating profits in sufficient amount to pay off the bonds when they become due. In other words, it binds itself to deduct the amount of the payment to the trustee of the sinking fund before considering any of its net income as available for dividends. This arrangement is, of course, favorable to the holders of the bonds in question, and of other bonds which the company may have issued, since it tends to strengthen their security.

In current practice the title "Sinking Fund" is used as the heading of two accounts, one an account of original entry and the other an account of duplicate entry. The one represents an asset, the other represents a portion of the net capital which is supposed to be reserved for a certain reason; the one represents a concrete thing, the other represents an abstract idea. The two accounts, then, are entirely distinct, and therefore if the bookkeeper had an accurate nomenclature he would not carry them both under the same heading. Some accountants recognize that fact and propose to remedy the matter by calling one of them "Sinking Fund"

and the other "Sinking Fund Account"; but since both of them are accounts, that would only add to the confusion. The proposal to distinguish between two accounts by calling one of them an account, strikingly illustrates the vagueness of the bookkeeper's ideas. In our discussion, in order to avoid ambiguity, we will call the account of original entry "Sinking Fund" and the account of duplicate entry "Sinking Fund Reserve." The latter is not a very satisfactory form of expression, but at all events it has the advantage of brevity and serves to indicate that the account represents not a concrete thing, but an abstract or imaginary subdivision of the net capital.

When both accounts are carried under the heading "Sinking Fund," the only way to tell one from the other is by the fact that the balance is brought down as a debit in the account of original entry, and as a credit in the account of duplicate entry. The bookkeeper classes the balance of the account of original entry as an asset, which of course is correct, since it represents the cash and securities which compose the sinking fund; but he classes the balance of the account of duplicate entry as a liability, which is an absurdity. The sinking fund is accumulated for the purpose of paying off the principal of the bonds; it has nothing to do with the interest. Now the whole liability and the only liability in connection with the principal of the bonds is shown under the heading "Bonds" or "Funded Debt"; therefore, if the balance which is brought down as a credit under the heading "Sinking Fund" is also classed as a liability, the bookkeeper is counting the same liability twice.

The term *sinking fund* is apt to call up visions of compound interest, but we have nothing to do with that part of the subject here, since the only purpose of our present discussion is to explain the difference between the account of original entry which is carried under the heading "Sinking Fund" and the account of duplicate entry which is often

carried under the same heading. The connection between sinking funds and compound interest is not essential, it is merely incidental, and is due to the fact that the accumulation of a sinking fund is usually the work of years. For that reason, as the money gradually accumulates, it will not be allowed to lie idle, but will be put out at interest, thus reducing the amount to be set aside at the end of each period. Assuming that all the money will earn a certain rate of interest all the time, it is easy to determine either by calculation or from tables which give the results of the calculations, the sum which must be added to the sinking fund at the end of each period in order to make the contributions and the interest amount to the required sum at the end of the specified time. Since the calculation may be based upon any assumed rate of interest, and since the question of interest does not enter into our discussion, we will assume for the sake of simplicity that the interest rate is zero. In that case the amount to be added to the sinking fund at the end of each period equals the total amount of the debt divided by the number of periods.

To illustrate the two accounts which are under discussion we will take the case of a company that has issued bonds to the amount of \$1,000,000 payable in twenty years. If the company intends to pay off the bonds when they mature it must accumulate a sinking fund for the purpose, and in order to do that (if we disregard the interest on the accumulations) it should put \$25,000 in cash or its equivalent into the sinking fund at the end of each half year. At the close of each period, then, the bookkeeper will make these entries:

	<i>Dr.</i>	<i>Cr.</i>
Sinking Fund	\$25,000	
Cash		\$25,000
Surplus	25,000	
Sinking Fund Reserve		25,000

At the end of five years the statement of the company will be in this form:

ASSETS		LIABILITIES	
Miscellaneous	\$3,400,000	Miscellaneous	\$100,000
Sinking Fund	250,000	Bonds	1,000,000
<hr/>		<hr/>	
Total	\$3,650,000	Total	\$1,100,000
<hr/>		<hr/>	
Bal. (Net Capital) ..	\$2,550,000	Bal. (Net Capital) ..	2,550,000
<hr/>		<hr/>	
		\$3,650,000	
<hr/>		<hr/>	
		Capital Stock	\$2,000,000
		Sinking Fund Reserve	250,000
		Surplus	300,000
<hr/>		<hr/>	
\$2,550,000		\$2,550,000	
<hr/>		<hr/>	

It will be noted that in the two accounts, Sinking Fund and Sinking Fund Reserve, we are simply recording the same thing twice, once in concrete form and again in abstract form, once as an asset and again as a portion of the net asset.

If the headings were written in full, the account of original entry would appear in the ledger in this form:

<i>Dr.</i>	<i>Sinking Fund</i>	<i>Cr.</i>
	<i>To Company</i>	
<hr/>		
	\$250,000	
<hr/>		

And the account of duplicate entry would be in this form:

<i>Dr.</i>	<i>Company (Sinking Fund Reserve)</i>	<i>Cr.</i>
	<i>To Outside Parties</i>	
<hr/>		
		\$250,000
<hr/>		

The first account means that the outside party called Sinking Fund owes \$250,000 to the company. Since the debt is good it represents an asset.

The second account means that the company is owed \$250,000 by the outside parties collectively. Since the debt is good it represents a portion of the net asset.

At the time when the bonds mature the statement of the company will be in this form:

ASSETS		LIABILITIES	
Miscellaneous	\$3,600,000	Miscellaneous	\$200,000
Sinking Fund	1,000,000	Bonds	1,000,000
<hr/>		<hr/>	
Total		Total	\$1,200,000
<hr/>		Bal. (Net Capital) ..	3,400,000
<hr/>		<hr/>	
Total		\$4,600,000	
<hr/>		<hr/>	
Bal. (Net Capital) ..	\$3,400,000	Capital Stock	\$2,000,000
<hr/>		Sinking Fd. Reserve ..	1,000,000
<hr/>		Surplus	400,000
<hr/>		<hr/>	
\$3,400,000		\$3,400,000	
<hr/>		<hr/>	

When the company pays off the bonds the entries, according to current practice, are as follows:

	<i>Dr.</i>	<i>Cr.</i>
Bonds	\$1,000,000	
Sinking Fund		\$1,000,000
Sinking Fund Reserve	1,000,000	
Surplus		1,000,000

The first two entries balance the accounts under the headings "Bonds" and "Sinking Fund." The third entry balances the account under the heading "Sinking Fund Reserve," and therefore we get rid of that title, which of course is no longer needed, since the bonds have now been paid. But the entry crediting Surplus is apt to give the impression that paying the bonds releases capital and makes it available for distribution, which is wrong. The proceeds of the bonds were invested in permanent improvements and therefore the money cannot be withdrawn from the business,

no matter whether the bonds have been paid or not. It would be better, then, to make the entries in this way:

	<i>Dr.</i>	<i>Cr.</i>
Bonds	\$1,000,000	
Sinking Fund		\$1,000,000
Sinking Fund Reserve	1,000,000	
Profits Invested in Improvements		1,000,000

These entries convey the right idea. Formerly we had \$1,000,000 of borrowed capital invested in permanent improvements; now, having paid off the debt out of profits, we have \$1,000,000 of accumulated profits invested in permanent improvements.

The statement then takes this form:

ASSETS	LIABILITIES
Miscellaneous .....\$3,600,000	Miscellaneous \$200,000
	Total \$200,000
	Bal. (Net Capital) .. 3,400,000
Total .....\$3,600,000	\$3,600,000
Bal. (Net Capital) ..\$3,400,000	Capital Stock .....\$2,000,000
	Profits Invested in
	Improvements 1,000,000
	Surplus 400,000
\$3,400,000	\$3,400,000

In order to avoid incongruity in the use of language when speaking of the net capital, it is necessary to distinguish clearly between those operations which affect the net capital and those which do not. We may speak of a portion of the net capital which is to be used to pay dividends or which is not to be used to pay dividends, because paying dividends reduces the net capital. We may speak of a portion of the net capital as reserved to meet a liability which is expected to accrue in the future, because the accruing of the liability will reduce the net capital. But to speak of a portion of the

net capital as reserved to pay outstanding bonds would be an absurdity; paying an existing debt does not affect the net capital one way or the other, it reduces both the assets and the liabilities by the same amount.

"Sinking Fund Reserve," then, does not mean a portion of the net capital which is to be used to pay the bonds, it means a portion of the net capital which is not to be used to pay dividends; in other words, it means a portion of the net capital which is to remain invested in the business.

Sometimes a company which has issued bonds does not set aside a special fund for the purpose of paying them off, but does take measures to accumulate profits to an extent equal to the amount of the bonds. In that case (if we follow the bookkeeper's practice of using the term "Sinking Fund" as the heading of the account of duplicate entry as well as of the account of original entry) the entries at the end of each period would be in this form:

	<i>Dr.</i>	<i>Cr.</i>
Surplus	\$25,000	
Sinking Fund		\$25,000

At the time when the bonds mature the statement would be as follows:

ASSETS	LIABILITIES
Miscellaneous .....\$4,600,000	Miscellaneous \$200,000
	Bonds 1,000,000
	Total .....\$1,200,000
	Bal. (Net Capital).. 3,400,000
Total .....\$4,600,000	
	\$4,600,000
Bal. (Net Capital)..\$3,400,000	Capital Stock .....\$2,000,000
	Sinking Fund 1,000,000
	Surplus 400,000
\$3,400,000	\$3,400,000

It will be noted, however, that this statement does not show whether the company is prepared to pay off its bonds or not. In practice the list of assets would be given in detail and that would show the condition of the company in regard to the bonds; that is to say, it would show whether the company has available assets in sufficient amount to pay them off. But the item under the head of "Sinking Fund" does not show it. All that that item shows is that the company has reserved profits to an extent equal to the amount of the bonds; but the item is an abstract number and therefore does not show how the reserved profits are invested. If its assets are good the company can, no doubt, borrow money to pay the bonds, that is to say, it can refund them; but it cannot pay them off unless it has cash or its equivalent available for the purpose.

When the account is carried in this way the officers and stockholders of the company are apt to have the idea that when they tell the bookkeeper to debit Surplus and credit Sinking Fund they are making provision for paying off the bonds. That idea is entirely wrong. A transfer from Surplus to Sinking Fund is merely a book transfer; it is an imaginary transfer of a portion of the net capital from one account of duplicate entry to another. It provides against the distribution of dividends which would prevent the accumulation of profits to an extent equal to the amount of the bonds; but it does not provide for accumulating the profits in such form as to be available for paying off the bonds. If the accumulation of profits is used to enlarge the business, it is very evident that it cannot be used to pay off the bonds, although it may make it easier to refund them.

Since bonds are generally issued for the purpose of raising money to make permanent improvements, the custom of carrying an account of duplicate entry under the heading "Sinking Fund" probably had its origin in the idea of depreciation, the idea that the value which the so-called

permanent improvements will have at the time when the bonds mature, is so uncertain that in determining the question of dividends it should be left out of consideration altogether. In other words, the idea is that no dividends should be declared unless the business is sufficiently prosperous to pay both the interest and the principal of the bonds and dividends besides. The object of the account of duplicate entry is to insure the carrying out of that policy. At the end of each period we determine the net income, which is the difference between the net capital at the close and the net capital at the beginning of the period. This net income is over and above the interest on the bonds, since that has already been paid and charged out as a loss. If, now, out of this net income we can reserve the amount which should be put into the sinking fund to pay the principal of the bonds and still have something left, it is proper to declare a dividend; otherwise it is not.

No doubt the practice of carrying an account of duplicate entry under the heading "Sinking Fund" originated before it was customary to make a formal allowance for depreciation, as is done nowadays. If before declaring a dividend we allow for the payment of the proper proportion of the principal of the bonds and also allow for the depreciation in the value of the permanent improvements for which the bonds were issued, it is very evident that we "make assurance double sure."

CHAPTER XXIII

STATEMENT OF A RAILROAD COMPANY.

The statement given below follows the form of a report published by one of the great railroad corporations under

THE A. & B. RAILROAD COMPANY
CONDENSED GENERAL BALANCE SHEET

ASSETS

Property Investment:

1.	Road	\$263,000,000	
2.	Equipment	133,000,000	\$396,000,000
<hr/>			
3.	Securities owned		280,000,000
4.	Securities under lease of C. & D. Railroad		3,000,000
5.	Advances to proprietary, affiliated and controlled companies		41,000,000
6.	Miscellaneous investments		1,000,000
7.	Cash		32,000,000
8.	Materials and supplies		15,000,000
9.	Cash and securities in sinking, insurance and other reserve funds		31,000,000
10.	Cash and securities in employees and provident funds		6,000,000
11.	Various other assets		30,000,000

\$835,000,000

date of December 31, 1910. It may be taken, therefore, as representing current practice.

In the example the items have been numbered for convenience of reference, and the names and amounts have been changed because it is easier to give and to read the amounts in round millions.

It will be noted that in this statement the title "Profit and Loss" is used in the sense in which we have been using the title "Surplus."

THE A. & B. RAILROAD COMPANY
CONDENSED GENERAL BALANCE SHEET

LIABILITIES

12. Capital Stock		\$412,000,000
13. Premium realized on capital stock		7,000,000
14. Bonded and secured debt	\$163,000,000	
15. Funded debt of companies whose properties have been acquired by the A. & B. Railroad Co.	54,000,000	
16. Guaranteed stock trust certificates of the E. & F. Railroad Co.	15,000,000	
17. Equipment trust obligations	34,000,000	
18. Mortgages and ground rents payable	4,000,000	270,000,000
19. Securities received with the lease of the C. & D. Railroad		3,000,000
20. Liability on account of employees and provident funds		6,000,000
21. Various liabilities		43,000,000
22. Additions to property through income		27,000,000
Reserves from Income or Surplus:		
23. Invested in sinking, redemption and other reserve funds	\$32,000,000	
24. Car trust principal charged out in advance and reserves for addi- tions and betterments	8,000,000	40,000,000
25. Profit and Loss		27,000,000
		<u>\$835,000,000</u>

In such reports the descriptions are necessarily condensed and in some cases they do not explain fully the nature of the items. For that very reason the accountant, the man whose business it is to know what the items mean, should classify them in such a way that the stockholders can tell what they mean. The writer does not profess to be able to give an authoritative interpretation of the statement, it would take an expert railroad accountant to do that; but we can discuss it tentatively, and that is all that is needed here, since our only object is to point out the principles upon which the classification of the items should be based.

It will facilitate the discussion to keep these facts in mind:

1. The statement deals with the affairs of the company, and the stockholders are the company; therefore an item does not represent asset or liability unless it represents asset or liability from the standpoint of the stockholders.

2. In order to appear on such a statement an item must represent either asset or liability or net capital; it cannot represent anything else. There may be cases (like items 4 and 19 and items 10 and 20) in which two items taken together cancel each other and therefore, jointly, represent neither asset nor liability; but taken separately each item represents either an asset or a liability.

3. Every item on the one side must represent either asset or negative net capital, and every item on the other side must represent either liability or positive net capital.

In our example, all of the items under the heading "Assets" evidently represent asset, therefore we need only to discuss the items under the heading "Liabilities." In regard to each of these items the only question is whether it represents liability or not; if it does not represent liability it must represent net capital, since the net capital is the difference between the assets and the liabilities.

So far as one can judge from the descriptions which are given, items 12, 13, 22, 23, 24 and 25 do not represent liability from the standpoint of the stockholders, and therefore they do not represent liability at all; they represent net capital.

Items 12 and 13 show portions of the net capital which are to be reserved from distribution as representing the amount contributed by the stockholders.

Item 22 shows a portion of the net capital which must be reserved from distribution because that amount of the profits has been invested in permanent improvements.

Item 23 shows a portion of the net capital which is to be reserved from distribution because the company must accumulate profits in order to pay off some of its bonds, the proceeds of which were invested in permanent improvements.

Item 24 shows \$8,000,000 under the heading "Car trust principal charged out in advance, and reserves for additions and betterments." The first part of that heading probably means that the company has decided to reserve a portion of its net capital from distribution because it intends to make a payment out of profits on the debt shown in item 17, under the heading "Equipment trust obligations"; and the second part of it means that the company has decided to reserve a certain amount of its net capital from distribution because it intends to invest a portion of its profits in permanent improvements.

Item 25 shows the remainder of the net capital after all of the amounts indicated above as reserved have been deducted.

Assuming that our understanding of the matter is correct, the statement should be made in this form:

THE A. & B. RAILROAD COMPANY
CONDENSED GENERAL BALANCE SHEET

ASSETS

Property Investment:

Road	\$263,000,000	
Equipment	133,000,000	\$396,000,000
<hr/>		
Securities owned	280,000,000	
Securities under lease of C. & D. Railroad	3,000,000	
Advances to proprietary, affiliated and controlled companies	41,000,000	
Miscellaneous investments	1,000,000	
Cash	32,000,000	
Materials and supplies	15,000,000	
Cash and securities in sinking, insurance and other reserve funds	31,000,000	
Cash and securities in employees and provident funds	6,000,000	
Various other assets	30,000,000	
<hr/>		
Total	\$835,000,000	
<hr/>		
Balance (Net Capital)	\$513,000,000	

\$513,000,000

THE A. & B. RAILROAD COMPANY
CONDENSED GENERAL BALANCE SHEET

LIABILITIES

Bonded and secured debt	\$163,000,000	
Funded debt of companies whose prop- erties have been acquired by the A. & B. Railroad Co.	54,000,000	
Guaranteed stock trust certificates of the E. & F. Railroad Co.	15,000,000	
Equipment trust obligations	34,000,000	
Mortgages and ground rents payable..	4,000,000	\$270,000,000
<hr/>		
Securities received with the lease of the C. & D. Railroad		3,000,000
Liability on account of employees and provident funds		6,000,000
Various liabilities		43,000,000
<hr/>		
Total	\$322,000,000	
Balance (Net Capital)	513,000,000	
		<hr/>
		\$835,000,000
<hr/>		
Capital Stock	\$412,000,000	
Premium realized on capital stock	7,000,000	
<hr/>		
Contributed Capital		\$419,000,000
Additions to property through income ..	\$27,000,000	
Sinking, redemption and other reserve funds	32,000,000	
Car trust principal charged out in ad- vance and reserves for additions and betterments	8,000,000	
Profit and Loss	27,000,000	
<hr/>		
Accumulated Profits		94,000,000
		<hr/>
		\$513,000,000
<hr/>		

This form of statement gives the information which the stockholder wants. It gives the assets in detail and the total of the assets and the liabilities in detail and the total of the liabilities; it also gives the total amount of the net capital and shows how it is supposed to be divided. From such a statement the stockholder can readily calculate the book value of a share of stock. If the par value of a share of stock is \$100, capital stock of \$412,000,000 represents 4,120,000 shares. The net capital is \$513,000,000; therefore the book value of a share of stock equals $\$513,000,000$ divided by 4,120,000, equals \$124.51.

The objection might be raised that a statement in this form would tend to give the stockholders an exaggerated idea of the value of the stock; but as a matter of fact, in the case of a railroad company at any rate, it would simply afford a means of comparing the book value with the quoted market value.

People who know anything at all about business matters know that to a very great extent bookkeeping necessarily deals with estimated values; they know, therefore, that a statement of this kind is at best a careful estimate of the value of the property. In railroad accounting it is customary to estimate the value of the road at what it cost to construct it, the idea being that the expenditure for maintenance (which is charged out as an expense) will keep the road up to its original value. But sometimes it may do more than that; it may improve the road. In that case the question arises whether any excess of expenditure over what is required to keep the property in its original condition should be regarded as an investment or as an expense. Theoretically, of course, it should be regarded as an investment; but practically it might be better to regard it as an expense. Under ordinary conditions the estimated value of the assets is never exactly correct; it is always either too low or too high, and from a business point of view it is generally considered safer

to have the estimate low rather than high. When the value of the assets is overestimated (and we will assume that the estimate is made in good faith) the danger is that excessive dividends may be declared, and when the officers and stockholders of the company wake up to the fact that they have been overvaluing their assets, they may find that they have distributed not only their profits but also a portion of their contributed capital; in other words, they may find that their capital is impaired. For that reason conservative business men are inclined to advocate the policy of not adding anything to the estimated value of the property except for extensions. The whole question, however, is largely a matter of opinion and therefore it must be settled by authority—in the case of railroad companies, by the authority of the law.

In our example, the item of \$27,000,000 under the heading "Additions to property through income" would indicate that railroad companies are expected to add to the estimated value of the property any expenditure on it in excess of what is needed to keep it in its original condition, but at the same time they are to record a corresponding portion of the net capital as reserved from distribution. That method of keeping the accounts may possibly lead to an overvaluation of assets; but it will not lead to an excessive distribution of dividends, nor will it lead to overcapitalization. What is commonly called "overcapitalization" is brought about by overvaluing the assets and then issuing stock to correspond with the imaginary increase of net capital. But in our example, whatever amount is added to the estimated value of the assets, a corresponding amount of the net capital must be indicated as reserved under the heading "Additions to property through income"; therefore that portion of the net capital cannot be distributed in dividends, nor can stock be issued against it.

If this sum of \$27,000,000, instead of being counted as an investment and added to the estimated value of the prop-

erty, had been charged out as an expense, the total of the assets would be \$27,000,000 less and the total amount of the net capital would be \$27,000,000 less. The amount of the net capital, then, would be \$486,000,000, and the book value of a share of stock would be \$486,000,000 divided by 4,120,000, equals \$117.96.

So far, we have based the discussion entirely upon the apparent meaning of the items, without reference to the principles of double-entry bookkeeping which are involved in the matter; but the connection between the principles of double-entry bookkeeping and the meaning of the items is very evident. All of the items under the heading "Assets" are made up of balances brought down as debits in accounts of original entry, and all of the items under the heading "Liabilities" are made up of balances brought down as credits in accounts of original entry. In every such account one of the outside parties is the first party and the company is the second party; therefore a balance brought down as a debit records a debt owed by an outside party to the company, and a balance brought down as a credit records a debt owed to an outside party by the company. Since only good debts are brought down to new account, these balances represent the assets and liabilities of the company.

The items showing the way in which the net capital is supposed to be divided are made up of balances brought down as credits in accounts of duplicate entry. In every such account the company is the first party and the outside parties collectively are the second party; therefore a balance brought down as a credit records all or part of the net good debt owed to the company by the outside parties collectively, and the net good debt owed to the company by the outside parties collectively represents its net capital.

CHAPTER XXIV

CONCLUSION.

It is not likely that anyone will attempt to controvert the theory developed in the preceding chapters; its truth is beyond question. There is not a weak link in the chain of the argument; the logic is absolutely unassailable. But some may ask: Of what use is it? To the man who is unable to think clearly, and therefore is unable to appreciate the value of clear thinking, it is of no use at all. If such a man wishes to become a bookkeeper, the only thing for him to do is to learn the art in the old-fashioned way, to learn it by rote and to do as he is told. But fortunately bookkeepers are not all of that class. In the great field of accounting are to be found men who rank with the best in any vocation, who have ability enough to carry the practical application of their art to its highest development, and also have intelligence enough to know that double-entry bookkeeping, as it has always been taught and practiced, has no rational basis. These are the men who will appreciate the value of a theory which places double-entry bookkeeping upon an equal footing with other branches of applied mathematics, thus opening the way for accountants to raise their occupation to the dignity of a profession.

What causes the current practice of double-entry bookkeeping to be regarded by all intelligent persons as outside the pale of common sense is the absurdity of its language—a language which violates the laws of rational speech in that it uses relative terms from a double standpoint. Men who use such a language, who charge out an item as a loss and then call it a reserve, who say that surplus is a liability and then say that increase in the amount of the surplus is gain, who call net asset a liability and net liability an asset

—men whose commonest form of expression is a contradiction in terms—will never be recognized as practicing a profession.

What this treatise has accomplished is to prove that double-entry bookkeeping is a rational process and therefore does not involve the necessity of using irrational language; that the ledger form of debit and credit has a meaning broad enough to cover all the purposes of accounting, and that every account is kept strictly in accordance with the meaning of the form; that double-entry bookkeeping, like single-entry bookkeeping, uses the words *asset* and *liability*, as well as the words *loss* and *gain*, from the natural standpoint, the standpoint of the proprietor—no matter whether the proprietor be an individual, a firm or a corporation. If the reader is in any doubt as to the way in which this has been accomplished let him turn again to Chapter IX and observe how the entries which are made to open the books are there explained without the introduction of an intermediate party. Let him also call to mind the fact that a firm or a company is not an intermediate party standing between its members and the outside world—the partners are the firm and the stockholders are the company.

If anyone should ask me how much of the theory I claim as new and original, I would say: All of it. I claim that this treatise presents the true and complete explanation of the art of accounting by the double-entry method; and, moreover, I claim that no other writer has ever advanced one single correct idea bearing upon the theory of double-entry bookkeeping—not one. That is a broad claim, but I believe that it will stand the test of the most searching investigation. In the theory of double-entry bookkeeping, as distinguished from single-entry bookkeeping, the whole problem and the only problem is to explain the use of the words *debtor* and *creditor* in other than personal accounts; and everything that the bookkeeper writes, everything that he says and everything

that he does tends to demonstrate the fact that he has never taken a single step toward the solution of that problem.

In single-entry bookkeeping there is nothing to explain, it is merely arithmetic applied to financial affairs, the correctness of the process is self-evident; and, aside from the figurative language which it uses, double-entry bookkeeping is exactly the same as single-entry bookkeeping. The only problem in double-entry bookkeeping, then, is the interpretation of its language, and that problem the bookkeeper has never been able to solve. He is in the unique position of a man who does not understand his own language, and a man who does not understand his own language can never explain anything. The consequence is that in the whole field of human activity there is not to be found another man who is so lacking in the ability to give a reason for his operations as the bookkeeper who uses the double-entry method. So far as the figures are concerned he knows that his results are correct, because the arithmetic of bookkeeping is so simple that there is no possibility of going astray; but in doing his work, in recording a transaction, for example, he has never been able to offer even the semblance of an explanation as to why he makes one of the entries under the heading "Debtor" and the other under the heading "Creditor." He is supposed to be engaged in mental as distinguished from manual labor, but as a matter of fact he cannot claim to be guided by even the faintest glimmer of reason; his operations are purely mechanical. Instead of exercising his intelligence, he is merely an imitator, a slave to custom and tradition, doing his work in a certain way simply because he has been taught to do it in that way. He understands double-entry bookkeeping as far as it coincides with single-entry bookkeeping, and no further; aside from the entries which he makes in personal accounts, he cannot give a rational explanation of anything that he does. In the case of the simplest transaction, the case of money paid out for expenses, for .

example, if one asks him why he debits Expense and credits Cash, he cannot make any reply at all, except to say that it is always done in that way. The very form in which he makes his entries,

	Dr.	Cr.
Expense	\$100	
To Cash		\$100

proves that he has no conception of their true meaning. He evidently thinks that Expense is debtor to Cash and Cash is creditor to Expense, which is an utter absurdity.

If the reader is inclined to regard the above indictment of the bookkeeper's intelligence as overdrawn, let him examine the text-books and see whether he can find even an attempt to explain why we record a disbursement of money for expenses by debiting Expense and crediting Cash; and if he does find anything of the sort, let him compare it with the true explanation, which is as follows:

Double-entry bookkeeping uses figurative language. When money is paid out for expenses, we are supposed to borrow the amount from the person called Cash and to lend it to the person called Expense, therefore Expense owes us and we owe Cash; we debit Expense and credit Cash.

If the reader will compare that explanation with any that he may find in the text-books, he will readily recognize the difference between clear thinking and muddled thinking; between a logical statement and what the lawyers call a *non sequitur*.

The writers who reject the idea of personification beg the question altogether, so far as the real problem of double-entry bookkeeping is concerned, admitting at the very start that, so far as they can see, the words *debit* and *credit* have no meaning whatever in other than personal accounts, except as arbitrary signs to indicate whether the entry is to be made on the left-hand side or on the right-hand side. In regard to double-entry bookkeeping as distinguished from single-

entry bookkeeping, these writers offer no theory at all. Their whole argument rests upon the mathematical relations which form the basis of all accounting, which apply to single-entry bookkeeping as well as to double-entry bookkeeping, and therefore cannot possibly explain the difference between the two systems.

Single-entry bookkeeping always uses literal language, while double-entry bookkeeping always uses figurative language, except in personal accounts. That is the difference, and the only difference, between the so-called single-entry method and the so-called double-entry method. To attempt to explain that difference by discussing the equation, Assets — Liabilities = Net Capital, is like attempting to explain the difference between prose and poetry by discussing the origin of the alphabet.

As a matter of fact, there never has been any but the one theory of double-entry bookkeeping advanced; and that one is false. There are only two possible theories. The accounts must be kept either from the standpoint of the proprietor or from the standpoint of an imaginary agent of the proprietor; it is impossible to conceive of any other standpoint. Of these two theories the bookkeeper has always adopted the wrong one, the theory that double-entry bookkeeping deals with the assets and liabilities of the "business," and therefore assets and liabilities are always equal.

Such a theory is an absurdity. It not only makes assets and liabilities equal, it makes them identical, thereby obliterating all of the fundamental distinctions of accounting. The amount under the head of Accounts Receivable is an asset of the business, because outside parties owe it to the business; but it is also a liability of the business, because the business owes it to the proprietor. The amount under the head of Accounts Payable is a liability of the business, because the business owes it to outside parties; but it is also an asset of the business, because the proprietor owes it to

the business. To base a theory upon the idea that every item is both an asset and a liability, because it is asset of the business looking one way and liability of the business looking the other way, is like basing a theory upon the idea that every building is on both sides of the street, because it is on the right-hand side looking one way and on the left-hand side looking the other way. The text-books which teach such a theory (and they are the only text-books of accounting which teach any theory at all) are a disgrace to an occupation that pretends to be based upon reason. Nowhere else in the literature of the arts and sciences is to be found such a jumble of muddled thinking, false reasoning and slipshod logic.

No doubt there is plenty of room for improvement in the teaching of other branches of useful knowledge, but I know of no other the study of which is incompatible with mental honesty; while in double-entry bookkeeping, as it is commonly taught, the pupil is not even prepared to begin his work until he professes a willingness to accept as true a doctrine which he knows to be false. I say that he knows it to be false, because no person of normal mind believes or ever did believe that assets and liabilities are always equal; and no person of normal mind is satisfied or ever was satisfied with a line of reasoning which leads to the conclusion that net asset is a liability and net liability an asset—a line of reasoning which is a typical example of what the logicians call *reductio ad absurdum*. To the normal mind the argument which is based upon the idea of counting from the standpoint of the “business” does not prove that assets and liabilities are always equal; on the contrary, the fact that it leads to that conclusion makes it a striking illustration of the self-evident truth that to use relative terms from a double standpoint is to violate the laws of rational speech.

The accountant who believes, or professes to believe, that double-entry bookkeeping deals with the assets and liabilities of the “business” never can explain anything and never can

define anything. If we ask him what net capital is, he will say that it is the difference between assets and liabilities. If we remind him that assets and liabilities are always equal, he will amend his definition and say that net capital is the difference between assets and *actual* liabilities. If we ask him what he means by the word *actual*, he has no definition to offer. If we ask him to explain why some accounts show *actual* liability and others show some other kind of liability, he is unable to explain it. If we ask him what the other kind of liability, the kind which is not actual, is called, he has no name for it. If we suggest that what is not actual must be nominal or fictitious or imaginary, he cannot admit the use of any of these words, because he knows that he may have nominal or fictitious or imaginary assets and liabilities among his so-called *actual* assets and liabilities.

What he means by the word *actual* is evident enough, although he seems to be unable, or unwilling, to explain it. By "actual liability" he means liability of the proprietor. When he says that an item represents actual liability, he means that it represents a debt owed by the proprietor. When he says that an item represents liability but not *actual* liability, he means that it represents all or part of the net debt owed to the proprietor. In other words, when he says actual liability, he means liability; when he says liability but not actual liability, he means net asset; and when he says liability, he may mean the one or he may mean the other or he may mean both. Such a use of words precludes the possibility of rational discussion.

When the bookkeeper says that items like Capital Stock and Surplus represent liability but not *actual* liability, his language is on a par with that of the little girl who says that the beverage which she is serving is tea, but not "truly" tea. The difference between the child's "truly" tea and the other kind of tea is in the fact that the other kind is not tea at all; and the difference between the bookkeeper's

“actual” liability and the other kind of liability is in the fact that the other kind is not liability at all. The use of such infantile expressions brings bookkeeping into contempt; it presents it in the light of a professedly rational pursuit that has not outgrown the language of the nursery.

When accountants learn to use words in their proper sense, when they learn to say asset when they mean asset, liability when they mean liability, and net capital when they mean net capital, they will be surprised to find how much higher a place their occupation will hold in public esteem.

